

Access DB# 138927**SEARCH REQUEST FORM****Scientific and Technical Information Center**

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 11-29-04
 Art Unit: 1752 Phone Number 302-1333 Serial Number: 101085, 935
 Mail Box and Bldg/Room Location: 9D66 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Please see attached Bib.

Inventors (please provide full names): _____

SCIENTIFIC REFERENCE BR
Sci. & Tech. Info. Cntr

Earliest Priority Filing Date: _____

NOV 30

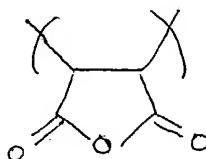
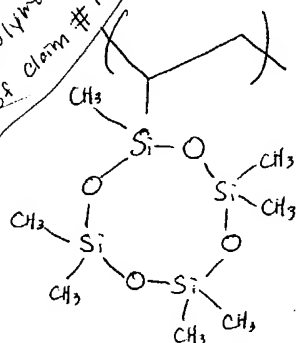
**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Pat. & T.M. Office

Please search for the polymer

having ~~the same~~ both of the
repeat units

This search covers polymers # 1 & 2 of claim # 17

**STAFF USE ONLY**

Searcher: GL

Searcher Phone #: _____

Searcher Location: _____

Date Searcher Picked Up: _____

Date Completed: 12-1-04

Searcher Prep & Review Time: _____

Clerical Prep Time: _____

Online Time: _____

Type of Search

NA Sequence (#) _____

AA Sequence (#) _____

Structure (#) _____

Bibliographic _____

Litigation _____

Fulltext _____

Patent Family _____

Other _____

Vendors and cost where applicable

STN _____

Dialog _____

Questel/Orbit _____

Dr.Link _____

Lexis/Nexis _____

Sequence Systems _____

WWW/Internet _____

Other (specify) _____



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Bib Data Sheet

CONFIRMATION NO. 4343

SERIAL NUMBER 10/085,935	FILING DATE 03/01/2002 RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. KOJIM-448
APPLICANTS Takanobu Takeda, Nakakubiki-gun, JAPAN; Jun Hatakeyama, Nakakubiki-gun, JAPAN; Toshinobu Ishihara, Nakakubiki-gun, JAPAN; Tohru Kubota, Nakakubiki-gun, JAPAN; Yasufui Kubota, Nakakubiki-gun, JAPAN;				
** CONTINUING DATA ***** None S.T.L.				
** FOREIGN APPLICATIONS ***** JAPAN 2001-058543 03/01/2001 S.T.L.				
IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 03/22/2002				
Foreign Priority claimed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions met <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance Verified and Acknowledged Examiner's Signature: <i>S.T.L.</i> Initials: S.T.L.	STATE OR COUNTRY JAPAN	SHEETS DRAWING 2	TOTAL CLAIMS 12	INDEPENDENT CLAIMS 1
ADDRESS 23599				
TITLE Silicon-containing polymer, resist composition and patterning process				
FILING FEE RECEIVED 1092	FEEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:			
<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit				

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FILE 'REGISTRY' ENTERED AT 12:02:04 ON 01 DEC 2004

E MALEIC ANHYDRIDE/CN
L1 1 S E3
E C9H24O4SI4
L2 40 S E3
L3 35 S 3763-39-1/CRN
L4 23350 S 108-31-6/CRN
L5 16 S L3 AND L4
L6 1 S L5 AND 2/NC
L7 15 S L5 NOT L6

FILE 'HCA' ENTERED AT 12:05:30 ON 01 DEC 2004

L8 1 S L6
L9 8 S L7
L10 7 S L9 NOT L8

=> file hca

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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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=> d 18 1 ibib abs hitstr hitrn

L8 ANSWER 1 OF 1 HCA COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 137:202031 HCA
TITLE: Preparation and patterning process of
silicon-containing chemical amplification
positive resist compositions
INVENTOR(S): Takeda, Takanobu; Hatakeyama, Jun; Ishihara,
Toshinobu; Kubota, Tohru; Kubota, Yasufumi
PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

Applicant's

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1236745	A2	20020904	EP 2002-251419	20020228
EP 1236745	A3	20040324		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002348332	A2	20021204	JP 2002-47351	20020225
US 2002168581	A1	20021114	US 2002-85935	20020301
PRIORITY APPLN. INFO.:				20010301
				JP 2001-56543 A

AB Novel silicon-containing polymers, which are obtained by copolymerizing vinylsilane with a compound having a low electron d. unsatd. bond such as maleic anhydride, maleimide derivs. or tetrafluoroethylene, are suitable as the base resin in chemical amplified pos. resist compns. used for micropatterning in a process for the fabrication of semiconductor devices. The resist compns., which are sensitive to high-energy radiation, such as deep-UV light, laser beams, electron beams or X-rays, can form high aspect ratio patterns with high sensitivity and resolution as well as improved resistance to oxygen or halogen gas plasma etching. Thus, maleic anhydride and trimethylvinylsilane were polymerized in THF using radical

polymerization

technique; the silicone polymer, photoacid generator, dissoln. inhibitor were thoroughly dissolved in propylene glycol monomethyl ether acetate; the resist solution was spin coated onto cured DUV-30/novolac resist substrate and then baked at 100° for 90 s to form a resist film of 0.2 µm, followed by exposing to laser beam, baking at 100° for 90 s, and developing in TMAH to obtain a pos. pattern; the resist pattern was then evaluated in sensitivity, resolution, and etc.

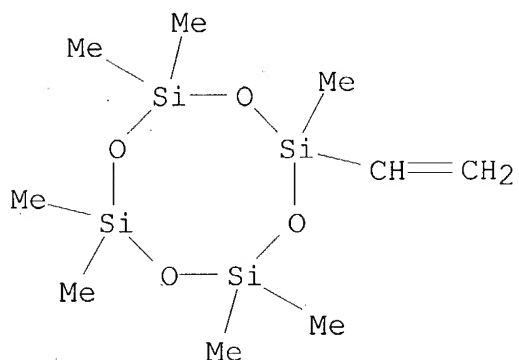
IT **452912-31-1P**, Maleic anhydride-vinylheptamethylcyclotetrasiloxane copolymer

(cured and uncured; silicon-containing chemical amplification pos. resist compns. and patterning process thereof)

RN 452912-31-1 HCA
 CN 2,5-Furandione, polymer with ethenylheptamethylcyclotetrasiloxane
 (9CI) (CA INDEX NAME)

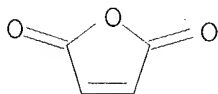
CM 1

CRN 3763-39-1
 CMF C9 H24 O4 Si4



CM 2

CRN 108-31-6
 CMF C4 H2 O3

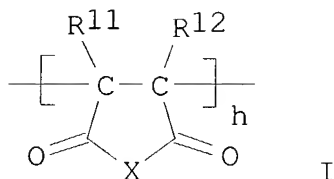


IT **452912-31-1P**, Maleic anhydride-vinylheptamethylcyclotetrasiloxane copolymer
 (cured and uncured; silicon-containing chemical amplification pos. resist compns. and patterning process thereof)

=> d 110 1-7 cbib abs hitstr hitrn

L10 ANSWER 1 OF 7 HCA COPYRIGHT 2004 ACS on STN
 141:372757 Silicon-containing polymer compound, resist material, and patterning method. Hatakeyama, Jun; Takeda, Takanobu; Ishihara, Toshinobu (Shin-Etsu Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP (2004) 92781 A2 20041021, 52 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2003-150236 20030528. PRIORITY: JP 2002-192866 20020702; JP 2003-27804 20030205.

GI



AB Disclosed is the silicon-containing polymer compound having repeating units represented by $[R_1C(SiR_4R_5R_6)-CR_2R_3]_a$, I, and $[H_2C-C(CH_2COOR_8)(COOR_7)]_c$ ($R_1-3 = H$, C_1-10 alkyl; $R_4-6 = C_1-20$ alkyl, haloalkyl, etc.; $R_7,8 = H$, C_1-10 alkyl, acid-unstable group; and $a, b, c = \text{integer}$). Also disclosed is the process involving plasma etching using a halogen gas such as Br_2 and Cl_2 after the formation of a pattern.

IT **779336-35-5P 779336-37-7P 779336-39-9P**

(silicon-containing polymer compound for resist material)

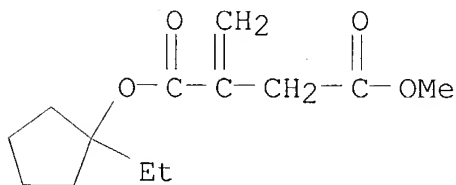
RN 779336-35-5 HCA

CN Butanedioic acid, methylene-, 1-(1-ethylcyclopentyl) 4-methyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 648895-32-3

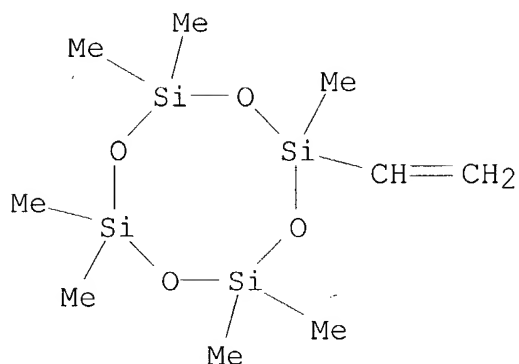
CMF C13 H20 O4



CM 2

CRN 3763-39-1

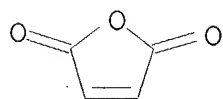
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



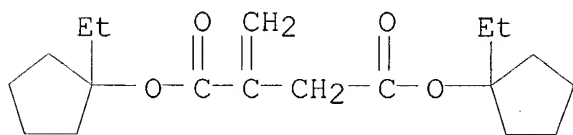
RN 779336-37-7 HCA

CN Butanedioic acid, methylene-, bis(1-ethylcyclopentyl) ester, polymer
with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI)
(CA INDEX NAME)

CM 1

CRN 779336-36-6

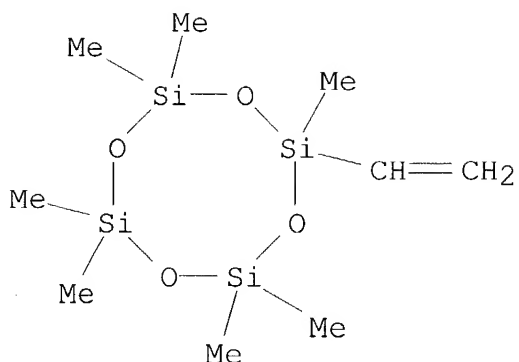
CMF C19 H30 O4



CM 2

CRN 3763-39-1

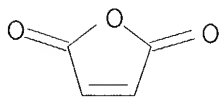
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



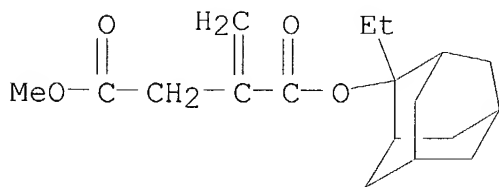
RN 779336-39-9 HCA

CN Butanedioic acid, methylene-, 1-(2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl) 4-methyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 779336-38-8

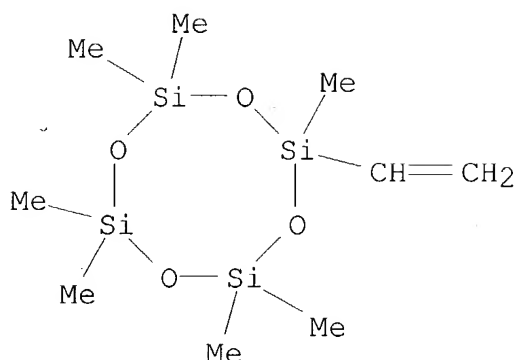
CMF C18 H26 O4



CM 2

CRN 3763-39-1

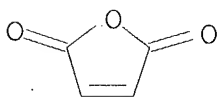
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



IT 779336-35-5P 779336-37-7P 779336-39-9P

(silicon-containing polymer compound for resist material)

L10 ANSWER 2 OF 7 HCA COPYRIGHT 2004 ACS on STN

141:251445 Positive photoresist resin containing silicone and method for pattern formation using the same. Hatakeyama, Jun; Kaneo, Takeshi; Watanabe, Takeshi; Takeda, Takanobu; Watanabe, Osamu (Shin-Etsu Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004252405 A2 20040909, 58 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2003-194035 20030709. PRIORITY: JP 2002-372897 20021224.

AB Title resin contains repeating unit $[-CH_2-C\{-CH_2-COO-CH_2-Si(R_2)(R_3)\}(COO-OR_1)]$ ($R_1 = H, C1-10$ alkyl, acid-sensitive group, etc.; $R_2-4 = C1-10$ alkyl, haloalkyl, $C6-20$ aryl; $m = \text{pos. number}$).

The resin provides photoresist precursor of high sensitivity and high resistance towards oxygen plasma etching.

IT 751481-67-1P

(resist resin containing silicone)

RN 751481-67-1 HCA

CN Butanedioic acid, methylene-, 1-(1-ethylcyclopentyl)

4-[(trimethylsilyl)methyl] ester, polymer with

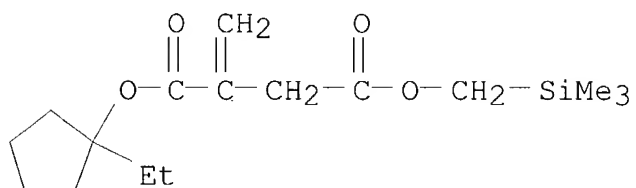
ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA

INDEX NAME)

CM 1

CRN 751481-61-5

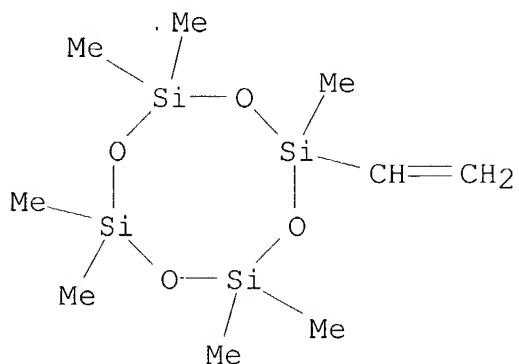
CMF C16 H28 O4 Si



CM 2

CRN 3763-39-1

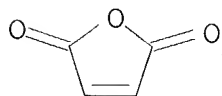
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

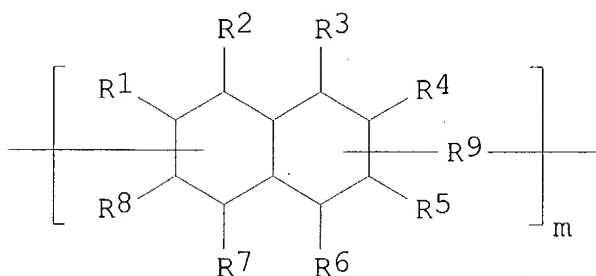
CMF C4 H2 O3



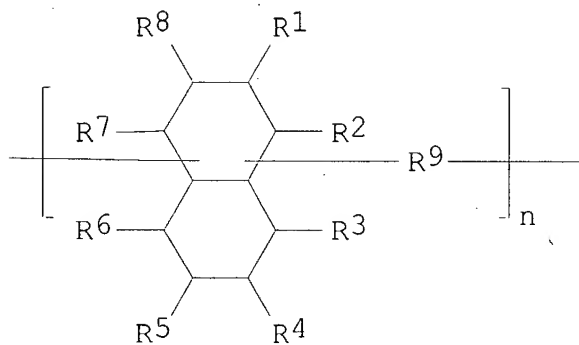
IT 751481-67-1P
(resist resin containing silicone)

L10 ANSWER 3 OF 7 HCA COPYRIGHT 2004 ACS on STN
 141:148085 Materials for forming antireflective undercoat layers for
 photoresist layers, and pattern formation method on substrates.
 Hatakeyama, Jun (Shin-Etsu Chemical Industry Co., Ltd., Japan).
 Jpn. Kokai Tokkyo Koho JP 2004205676 A2, 20040722, 30 pp.
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-372775 20021224.

GI



I



II

AB The materials comprise polymers having partially hydrogenated naphthol derivs. as repeating units. Preferably, the materials are dry etchable and the polymers are naphthol novolaks having repeating units represented by I or II [R1-8 = H, OH, (substituted) C1-6 alkyl, (substituted) C1-6 alkoxy, isocyanate, etc.; R9 = C1-6 alkylene, C6-10 arylene; m, n = 0, pos. integer; 0 < m + n ≤ 0.8] as repeating units. Also claimed is a process for forming a pattern on a substrate (made of high reflective Al, Si, etc.), including steps of successively forming the undercoat layers and

photoresist layers, imagewise exposure the photoresist layers to radiation and developing to give photoresist patterns, dry etching the undercoat layer (with oxygen etchant) via the photoresist pattern mask, and then dry etching the substrate via the undercoat layer. The antireflective undercoat films with ≥ 200 nm thickness show sufficient antireflective effects for 193-nm light, and show approx. the same etching resistance to CHF₃/CF₄ etchants and Cl₂/BCl₃ etchants as those of novolak resins in patterning the substrate for such as semiconductor device fabrication.

IT 726187-57-1

(photoresist; materials for forming partially hydrogenated naphthol novolak antireflective undercoat layers for photoresist layers, and pattern formation method on substrates)

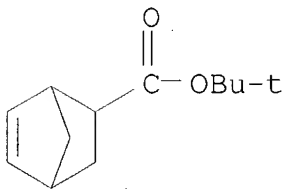
RN 726187-57-1 HCA

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 154970-45-3

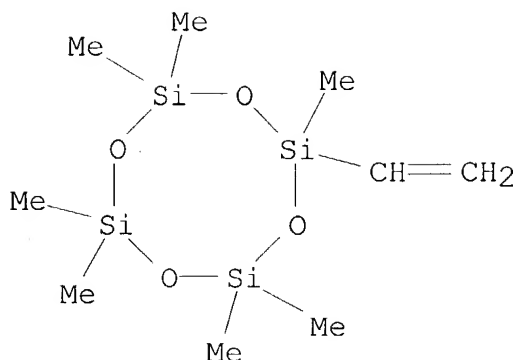
CMF C12 H18 O2



CM 2

CRN 3763-39-1

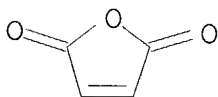
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



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10/671,732

IT 726187-57-1

(photoresist; materials for forming partially hydrogenated naphthol novolak antireflective undercoat layers for photoresist layers, and pattern formation method on substrates)

L10 ANSWER 4 OF 7 HCA COPYRIGHT 2004 ACS on STN

140:329540 Polymerizable silicon-containing compound for polymer resist composition and patterning process. Kinsho, Takeshi; Watanabe, Takeru; Hasegawa, Koji (Japan). U.S. Pat. Appl. Publ. US 2004067436 A1 20040408, 22 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-671732 20030929. PRIORITY: JP 2002-285171 20020930.

AB Polymerizable silicon-containing compds. of formula:

(CH₃)₃SiCH₂C(=CH₂)C(=O)OR₁ (R₁ = hydrogen, halogen or monovalent organic group) are polymerized into polymers. A resist composition

comprising

the polymer as a base resin is sensitive to high-energy radiation, has excellent sensitivity and resolution at a wavelength of less than 300 nm, and high resistance to oxygen plasma etching, and thus lends itself to micropatterning for the fabrication of VLSIs.

IT 677775-99-4P

(polymerizable silicon-containing compound for polymer resist composition and patterning process)

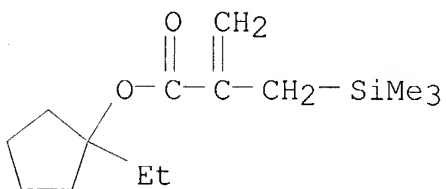
RN 677775-99-4 HCA

CN 2-Propenoic acid, 2-[(trimethylsilyl)methyl]-, 1-ethylcyclopentyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 677775-92-7

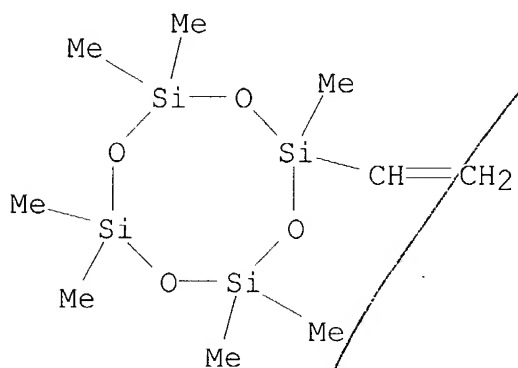
CMF C14 H26 O2 Si



CM 2

CRN 3763-39-1

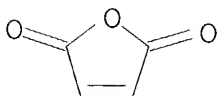
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



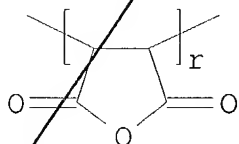
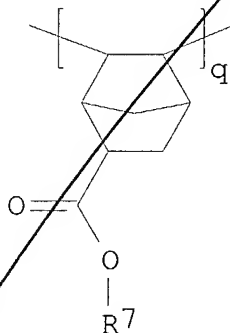
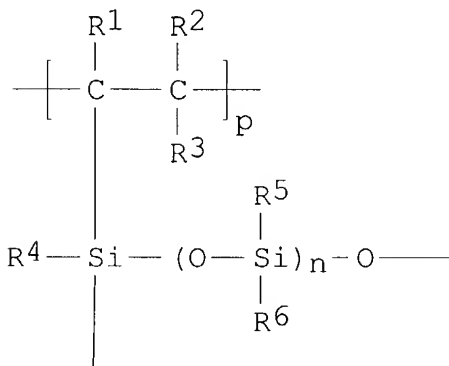
IT 677775-99-4P

(polymerizable silicon-containing compound for polymer resist composition and patterning process)

L10 ANSWER 5 OF 7 HCA COPYRIGHT 2004 ACS on STN

140:84642 Silicon-containing polymer, resist composition and patterning process. Takeda, Takanobu; Hatakeyama, Jun; Ishihara, Toshinobu (Japan). U.S. Pat. Appl. Publ. US 2004006191 A1 20040108, 20 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-611014 20030702. PRIORITY: JP 2002-192947 20020702.

GI



I

AB The invention relates to silicon-containing polymers comprising recurring units of three components represented by the general formula I (R1-3 = H, 1-10 alkyl; C4-6 = H, C 1-20 alkyl or haloalkyl, etc.; R7 = C 4-20 alkyl; n = 1-5; p, q, r = pos. number) are novel. Resist compns. comprising the polymers are sensitive to high-energy radiation and have a high sensitivity and resolution at a wavelength of less than 300 nm and improved resistance to oxygen plasma etching. 1.

IT 640728-38-7P 640728-39-8P 640728-40-1P

(silicon-containing polymer, resist composition and patterning process)

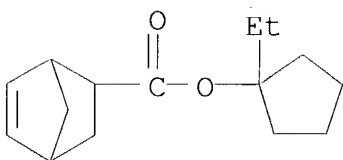
RN 640728-38-7 HCA

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1-ethylcyclopentyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 279243-69-5

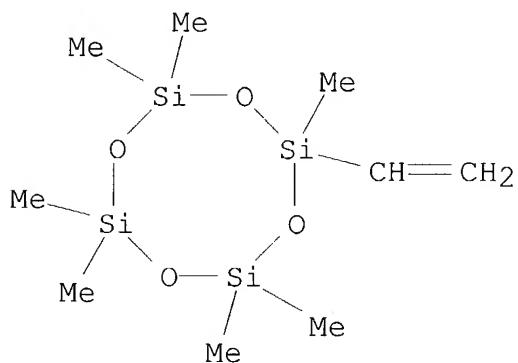
CMF C15 H22 O2



CM 2

CRN 3763-39-1

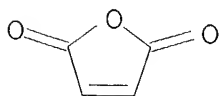
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3

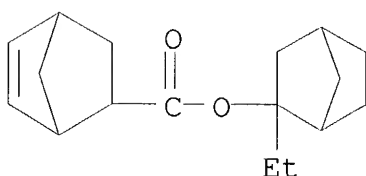


RN 640728-39-8 HCA
CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-ethylbicyclo[2.2.1]hept-2-yl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 330596-01-5

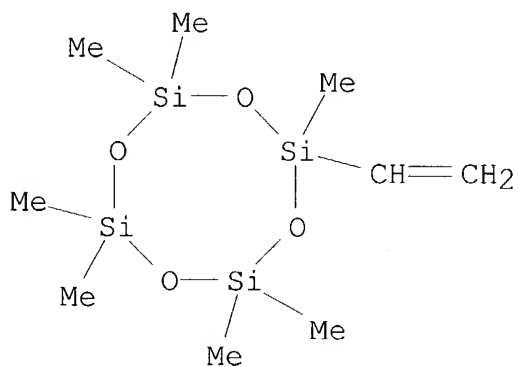
CMF C17 H24 O2



CM 2

CRN 3763-39-1

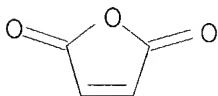
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3

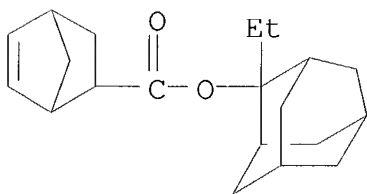


RN 640728-40-1 HCA
CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 328087-87-2

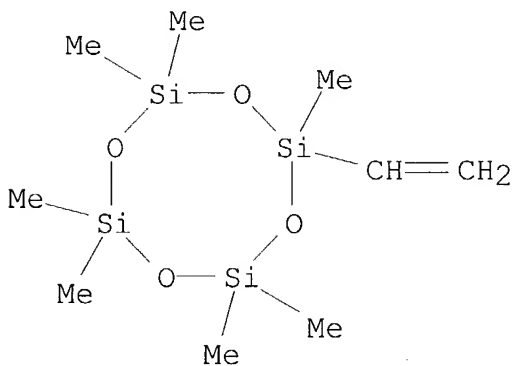
CMF C20 H28 O2



CM 2

CRN 3763-39-1

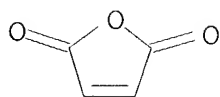
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



IT **640728-38-7P 640728-39-8P 640728-40-1P**

(silicon-containing polymer, resist composition and patterning process)

L10 ANSWER 6 OF 7 HCA COPYRIGHT 2004 ACS on STN

140:50319 Photoacid generating compounds, chemically amplified positive resist materials, and pattern forming method. Hatakeyama, Jun; Kobayashi, Tomohiro; Ohsawa, Youichi (Japan). U.S. Pat. Appl. Publ. US 2003235779 A1 20031225, 47 pp., Cont.-in-part of U.S. Pat. Appl. 2003 207,201. (English). CODEN: USXXCO. APPLICATION: US 2003-375773 20030227. PRIORITY: JP 2001-397192 20011227; US 2002-331785 20021227.

AB The invention provides a high-resolution resist material comprising an acid generator that has high sensitivity and high resolution with respect to high-energy rays of 300 nm or less, has small line-edge roughness, and is superior in heat stability and in shelf stability, and provides a pattern forming method that uses this resist material. The invention further provides a chemical amplified pos. resist material comprising a base resin, an acid generator and a solvent in which the acid generator generates an alkylimidic acid containing a fluorine group, and provides a pattern forming method comprising a step of applying the resist material to the substrate, a step of performing exposure to a high-energy ray of a wavelength of 300 nm or less through a photomask following heat treatment, and a step of performing development by a developing solution following heat treatment.

IT **635715-36-5 635715-38-7**

(resin; chemical amplified pos. resist materials containing)

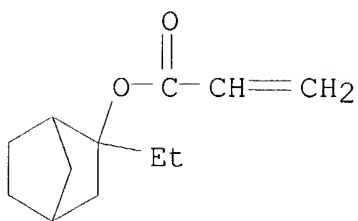
RN 635715-36-5 HCA

CN 2-Propenoic acid, 2-ethylbicyclo[2.2.1]hept-2-yl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 449173-03-9

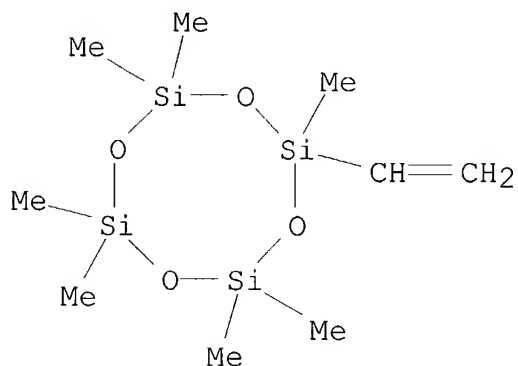
CMF C12 H18 O2



CM 2

CRN 3763-39-1

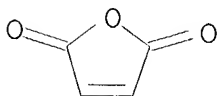
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



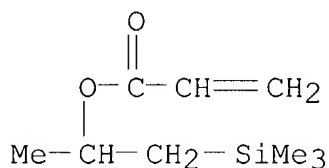
RN 635715-38-7 HCA

CN 2-Propenoic acid, 1-methyl-2-(trimethylsilyl)ethyl ester, polymer
with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI)
(CA INDEX NAME)

CM 1

CRN 635715-37-6

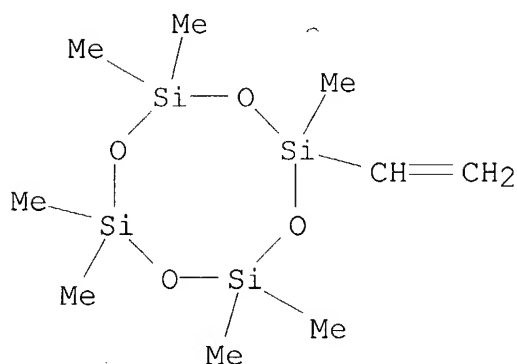
CMF C9 H18 O2 Si



CM 2

CRN 3763-39-1

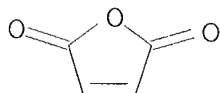
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



IT 635715-36-5 635715-38-7

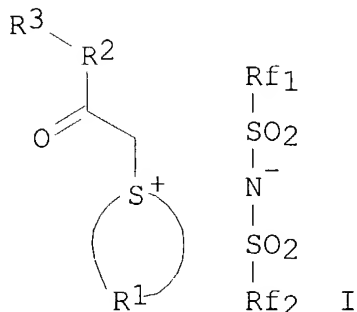
(resin; chemical amplified pos. resist materials containing)

L10 ANSWER 7 OF 7 HCA COPYRIGHT 2004 ACS on STN

139:267981 Photosensitive acid-generating agent, chemically amplified positively-working photoresist material, and patterning method. Hatakeyama, Jun; Kobayashi, Tomohiro; Osawa, Yoichi (Shin-Etsu Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003261529 A2 (20030919), 49 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 2002-369145 20021220. PRIORITY: JP 2001-397192
20011227.

GI



AB The acid-generating agent is a sulfonium salt represented as I [R1 = C2-8 alkylene; R2 = direct bond, O, N, C1-4 alkylene; R3 = (substituted) linear, branched, or cyclic alkyl, aryl; Rf1 and/or Rf2 = F-containing C1-20 linear, branched, or cyclic alkyl which may involve OH, carbonyl, ester, ether or aryl; Rf1 and Rf2 may form rings]. The chemical amplified pos. working photoresist contains, a base resin, a solvent, and an agent releasing an alkylimidic acid, preferably I or R4nM+ Rf1SO2NSO2Rf2- [R4 = linear, branched, or cyclic alkyl (involving carbonyl, ester, ether, thioether, or double bond), aryl, aralkyl; M = iodonium, sulfonium; n = 2, 3]. The photoresist material is applied on a substrate, heated, exposed to high-energy radiation with wavelength ≤ 300 nm through a photomask, heated, and developed to form a pattern. The pattern with high resolution, small line edge roughness, and heat and storage stability is obtained by the method.

IT **601520-60-9 601520-61-0**

(photosensitive fluoroalkylimidic acid-generating agent for chemical

amplified pos.-working photoresist material)

RN 601520-60-9 HCA

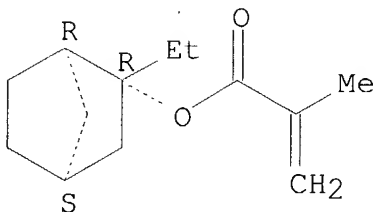
CN 2-Propenoic acid, 2-methyl-, (1R,2R,4S)-2-ethylbicyclo[2.2.1]hept-2-yl ester, rel-, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 271598-68-6

CMF C13 H20 O2

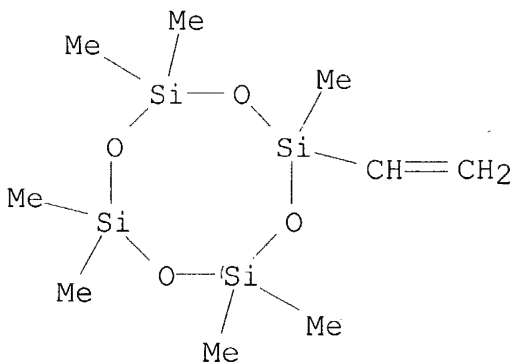
Relative stereochemistry.



CM 2

CRN 3763-39-1

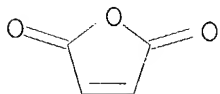
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3

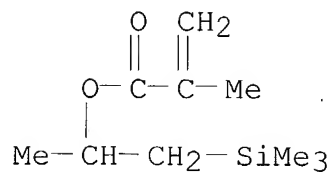


RN 601520-61-0 HCA

CN 2-Propenoic acid, 2-methyl-, 1-methyl-2-(trimethylsilyl)ethyl ester,
polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione
(9CI) (CA INDEX NAME)

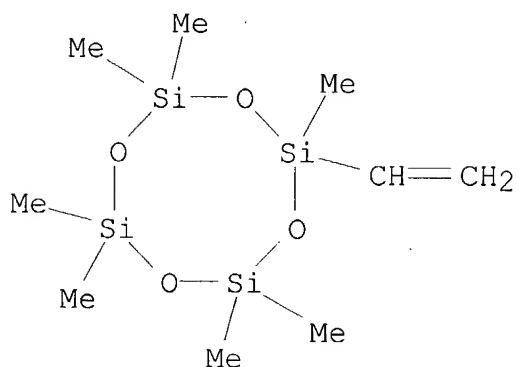
CM 1

CRN 409320-43-0
CMF C10 H20 O2 Si



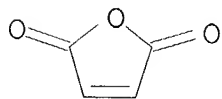
CM 2

CRN 3763-39-1
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6
CMF C4 H2 O3



IT **601520-60-9 601520-61-0**
(photosensitive fluoroalkylimidic acid-generating agent for
chemical
amplified pos.-working photoresist material)

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 11-29-04
 Art Unit: 1752 Phone Number 302-1333 Serial Number: 10/085,935
 Mail Box and Bldg/Room Location: 9060 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Please see B.b. sheet.

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent number) along with the appropriate serial number.

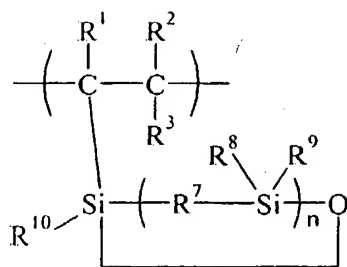
SCIENTIFIC REFERENCE BR
Sci. & Tech. Info. Cntr

Pat. & T.M. Office

✓ Please search for the polymer ~~and~~
~~having~~ having the following
 repeating unit (see attachment)

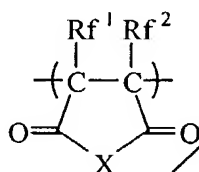
STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>EL</u>	NA Sequence (#) _____	STN _____
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Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>12-1-04</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____



(2)

wherein R^1 to R^3 are as defined above, R^7 is an oxygen atom, a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms or an arylene group, R^8 to R^{10} each are independently a straight, branched or cyclic alkyl or fluorinated alkyl group having 1 to 10 carbon atoms or an aryl group, and n is an integer of 2 to 10,



(3)

wherein X is an oxygen atom, a sulfur atom or $-NR-$, R is hydrogen, hydroxyl, a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, or an aryl group, and may contain an acid labile group, Rf^1 and Rf^2 each are independently hydrogen, fluorine or trifluoromethyl.

Claim 3 (Currently Amended): ~~The silicon-containing polymer of claim 1 further comprising recurring units of the general formula (4):~~ A silicon-containing polymer comprising recurring units of at least one of the following general formulae (1), (2) and (4):



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov



Bib Data Sheet

CONFIRMATION NO. 4343

SERIAL NUMBER 10/085,935	FILING DATE 03/01/2002 RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. KOJIM-448
APPLICANTS Takanobu Takeda, Nakakubiki-gun, JAPAN; Jun Hatakeyama, Nakakubiki-gun, JAPAN; Toshinobu Ishihara, Nakakubiki-gun, JAPAN; Tohru Kubota, Nakakubiki-gun, JAPAN; Yasufui Kubota, Nakakubiki-gun, JAPAN;				
** CONTINUING DATA ***** None S.T.L.				
** FOREIGN APPLICATIONS ***** JAPAN 2001-056543 03/01/2001 S.T.L.				
IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 03/22/2002				
Foreign Priority claimed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Met after met allowance Verified and <i>S.T.L.</i> Acknowledged Examiner's Signature Initials		STATE OR COUNTRY JAPAN	SHEETS DRAWING 2	TOTAL CLAIMS 12
				INDEPENDENT CLAIMS 1
ADDRESS 23599				
TITLE Silicon-containing polymer, resist composition and patterning process				
FILING FEE RECEIVED 1092	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit _____	

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FILE 'REGISTRY' ENTERED AT 12:27:31 ON 01 DEC 2004
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FILE 'REGISTRY' ENTERED AT 12:02:04 ON 01 DEC 2004

E MALEIC ANHYDRIDE/CN
L1 1 S E3
E C9H24O4SI4
L2 40 S E3
L3 35 S 3763-39-1/CRN
L4 23350 S 108-31-6/CRN
L5 16 S L3 AND L4
L6 1 S L5 AND 2/NC
L7 15 S L5 NOT L6

FILE 'HCA' ENTERED AT 12:05:30 ON 01 DEC 2004

L8 1 S L6
L9 8 S L7
L10 7 S L9 NOT L8

FILE 'LREGISTRY' ENTERED AT 12:12:03 ON 01 DEC 2004

L11 STR

FILE 'REGISTRY' ENTERED AT 12:19:05 ON 01 DEC 2004

L12 SCR 2043
L13 50 S L11 AND L12
L14 STR L11
L15 20 S L14 AND L12
L16 STR L14
L17 3 S (L14 NOT L16) AND L12
L18 69 S (L14 NOT L16) AND L12 FUL
SAV L18 LEE935/A

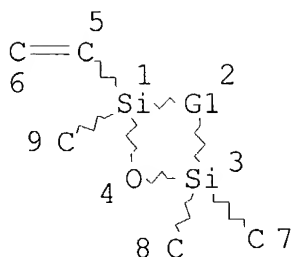
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L19 59 S L18

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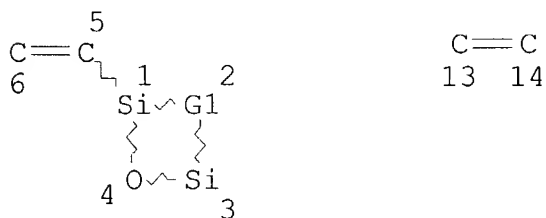
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
 L16 STR



REP G1=(3-12) A
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE
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100.0% PROCESSED 4290 ITERATIONS
 SEARCH TIME: 00.00.02

69 ANSWERS

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=> d 119 1-59 cbib hitstr

L19 ANSWER 1 OF 59 ZCA COPYRIGHT 2004 ACS on STN

141:372757 Silicon-containing polymer compound, resist material, and patterning method. Hatakeyama, Jun; Takeda, Takanobu; Ishihara, Toshinobu (Shin-Etsu Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004292781 A2 20041021, 52 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2003-150236 20030528. PRIORITY: JP 2002-192866 20020702; JP 2003-27804 20030205.

IT **779336-35-5P 779336-37-7P 779336-39-9P**

(silicon-containing polymer compound for resist material)

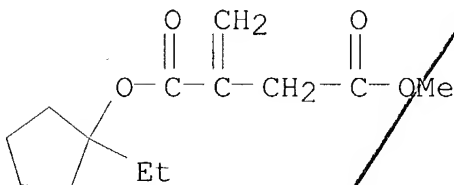
RN 779336-35-5 ZCA

CN Butanedioic acid, methylene-, 1-(1-ethylcyclopentyl) 4-methyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 648895-32-3

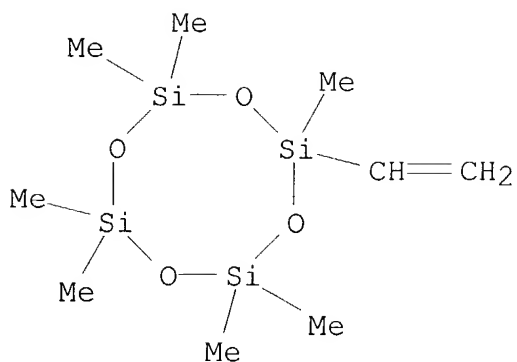
CMF C13 H20 O4



CM 2

CRN 3763-39-1

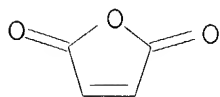
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



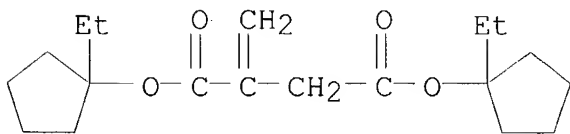
RN 779336-37-7 ZCA

CN Butanedioic acid, methylene-, bis(1-ethylcyclopentyl) ester, polymer
with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI)
(CA INDEX NAME)

CM 1

CRN 779336-36-6

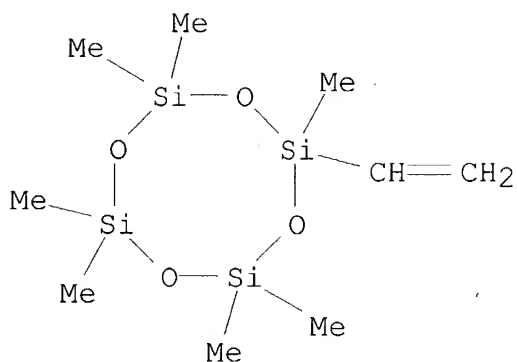
CMF C19 H30 O4



CM 2

CRN 3763-39-1

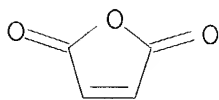
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



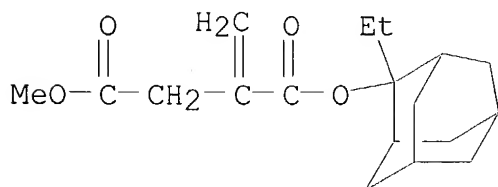
RN 779336-39-9 ZCA

CN Butanedioic acid, methylene-, 1-(2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl) 4-methyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 779336-38-8

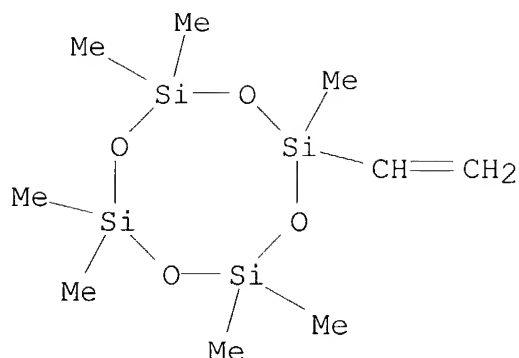
CMF C18 H26 O4



CM 2

CRN 3763-39-1

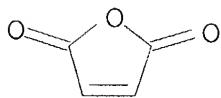
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



L19 ANSWER 2 OF 59 ZCA COPYRIGHT 2004 ACS on STN

141:367458 Aqueous silicone resin compositions with good surface smoothness and abrasion resistance. Iguchi, Yoshinori (Shin-Etsu Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004300374 A2 20041028, 23 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2003-97912/20030401.

IT **778641-09-1P**

(blend with polysiloxane-silsesquioxane; aqueous silicone resin compns. with good surface smoothness and abrasion resistance)

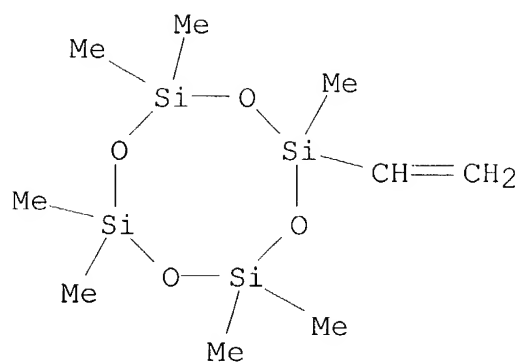
RN 778641-09-1 ZCA

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylheptamethylcyclotetrasiloxane, ethyl 2-propenoate and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

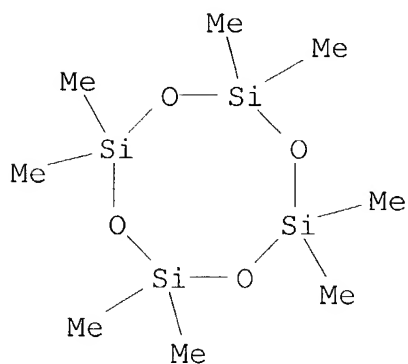
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

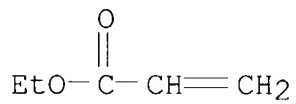
CMF C8 H24 O4 Si4



CM 3

CRN 140-88-5

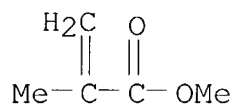
CMF C5 H8 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



L19 ANSWER 3 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 141:251445 Positive photoresist resin containing silicone and method for
 pattern formation using the same. Hatakeyama, Jun; Kaneo, Takeshi;
 Watanabe, Takeshi; Takeda, Takanobu; Watanabe, Osamu (Shin-Etsu
 Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP
 2004252405 A2, 20040909, 58 pp. (Japanese). CODEN: JKXXAF.
 APPLICATION: JP 2003-194035 20030709. PRIORITY: JP 2002-372897
 20021224.

IT **751481-67-1P 751481-68-2P**
 (resist resin containing silicone)

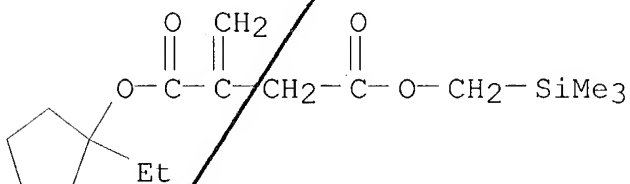
RN 751481-67-1 ZCA

CN Butanedioic acid, methylene-, 1-(1-ethylcyclopentyl)
 4-[(trimethylsilyl)methyl] ester, polymer with
 ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA
 INDEX NAME)

CM 1

CRN 751481-61-5

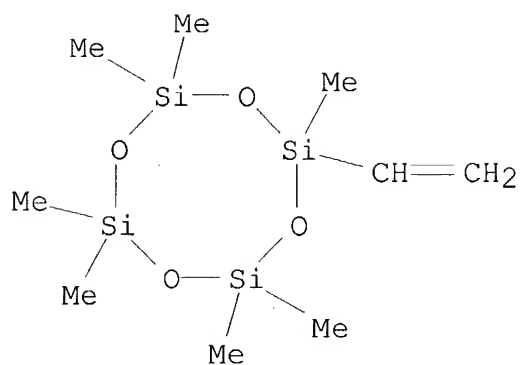
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CM 2

CRN 3763-39-1

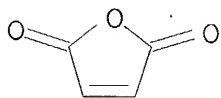
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



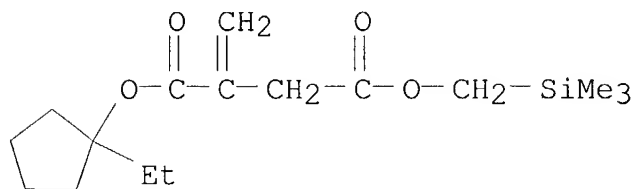
RN 751481-68-2 ZCA

CN Butanedioic acid, methylene-, polymer with
ethenylheptamethylcyclotetrasiloxane and 1-(1-ethylcyclopentyl)
4-[(trimethylsilyl)methyl] methylenebutanedioate (9CI) (CA INDEX
NAME)

CM 1

CRN 751481-61-5

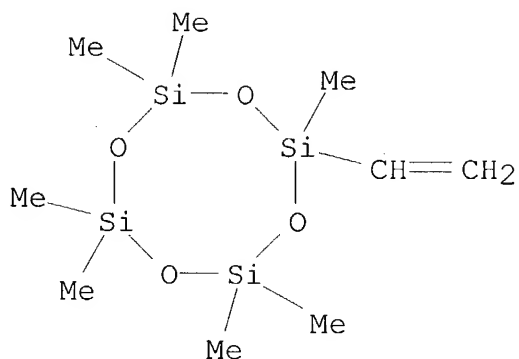
CMF C16 H28 O4 Si



CM 2

CRN 3763-39-1

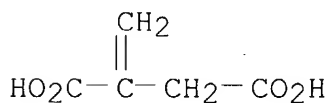
CMF C9 H24 O4 Si4



CM 3

CRN 97-65-4

CMF C5 H6 O4



L19 ANSWER 4 OF 59 ZCA COPYRIGHT 2004 ACS on STN

141:148085 Materials for forming antireflective undercoat layers for photoresist layers, and pattern formation method on substrates.

Hatakeyama, Jun (Shin-Etsu Chemical Industry Co., Ltd., Japan).

Jpn. Kokai Tokkyo Koho JP 2004205676 A2 20040722, 30 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-372775 20021224.

IT **726187-57-1**

(photoresist; materials for forming partially hydrogenated naphthol novolak antireflective undercoat layers for photoresist layers, and pattern formation method on substrates)

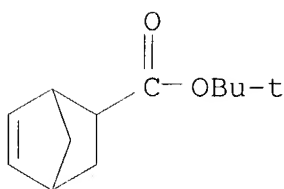
RN 726187-57-1 ZCA

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 154970-45-3

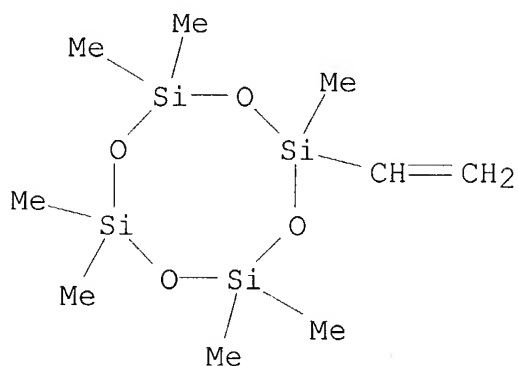
CMF C12 H18 O2



CM 2

CRN 3763-39-1

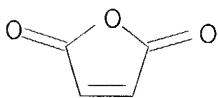
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



L19 ANSWER 5 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 140:329540 Polymerizable silicon-containing compound for polymer resist
 composition and patterning process. Kinsho, Takeshi; Watanabe,
 Takeru; Hasegawa, Koji (Japan). U.S. Pat. Appl. Publ. US 2004067436
 A1 20040408, 22 pp. (English). CODEN: USXXCO. APPLICATION: US
 2003-671732 20030929. PRIORITY: JP 2002-285171 20020930.

IT 677775-99-4P

(polymerizable silicon-containing compound for polymer resist
 composition

and patterning process)

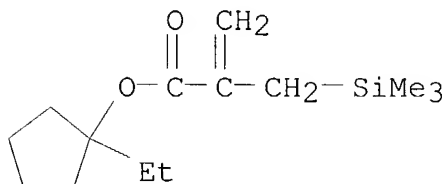
RN 677775-99-4 ZCA

CN 2-Propenoic acid, 2-[(trimethylsilyl)methyl]-, 1-ethylcyclopentyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 677775-92-7

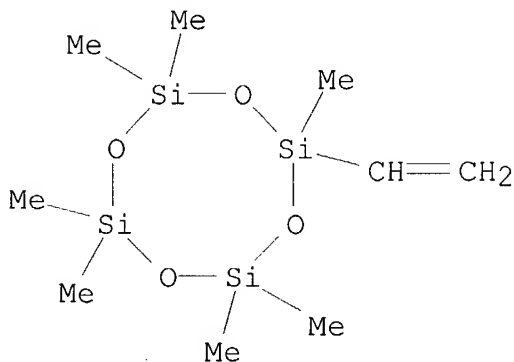
CMF C14 H26 O2 Si



CM 2

CRN 3763-39-1

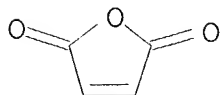
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



L19 ANSWER 6 OF 59 ZCA COPYRIGHT 2004 ACS on STN
140:305163 Bond layer for coatings on plastic substrates. Iacovangelo,
Charles D. (General Electric Company, USA). U.S. Pat. Appl. Publ.
US 2004071971 A1 20040415, 6 pp. (English). CODEN: USXXCO.
APPLICATION: US 2002-269415 20021011.

IT **25085-97-6P**, Heptamethyl(vinyl)cyclotetrasiloxane
homopolymer

(plasma; bond layer for coatings on plastic substrates)

RN 25085-97-6 ZCA

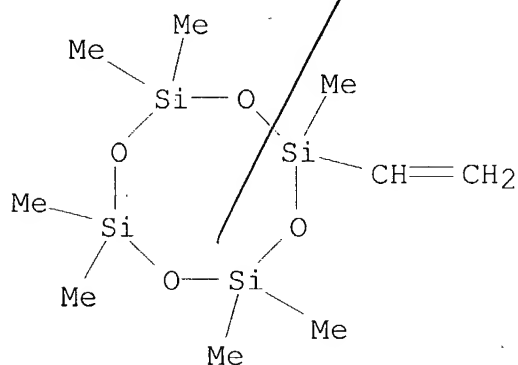
CN Cyclotetrasiloxane, ethenylheptamethyl-, homopolymer (9CI) (CA
INDEX NAME)

CM 1

CRN 3763-39-1

CMF C9 H24 O4 Si4

Date Not good



L19 ANSWER 7 OF 59 ZCA COPYRIGHT 2004 ACS on STN
140:136424 Silicon-containing polymer, photoresist composition and
patterning process. Hatakeyama, Jun; Takeda, Takanobu; Ishihara,
Toshinobu (Japan). U.S. Pat. Appl. Publ. US 2004013980 A1 20040122,
36 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-611261
20030702. PRIORITY: JP 2002-192910 20020702.

IT **648895-27-6P 648895-29-8P 648895-30-1P**
648895-31-2P 648895-33-4P

(silicon-containing polymer, resist composition for patterning
process)

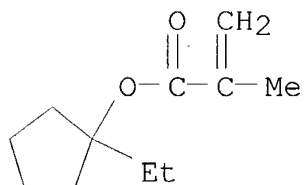
RN 648895-27-6 ZCA

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with
ethenylheptamethylcyclotetrasiloxane and methyl ethenesulfonate
(9CI) (CA INDEX NAME)

CM 1

CRN 266308-58-1

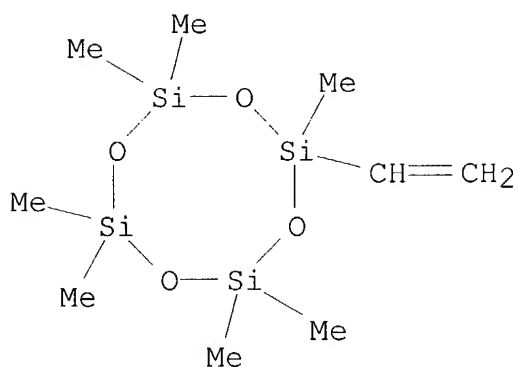
CMF C11 H18 O2



CM 2

CRN 3763-39-1

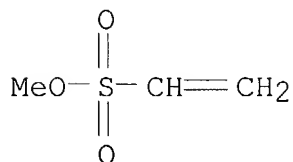
CMF C9 H24 O4 Si4



CM 3

CRN 1562-31-8

CMF C3 H6 O3 S



RN 648895-29-8 ZCA

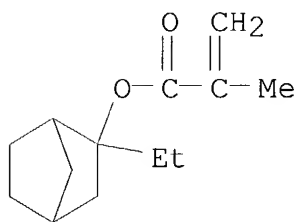
CN 2-Propenoic acid, 2-methyl-, 2-ethylbicyclo[2.2.1]hept-2-yl ester,
polymer with ethenylheptamethylcyclotetrasiloxane and methyl

ethenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 330595-98-7

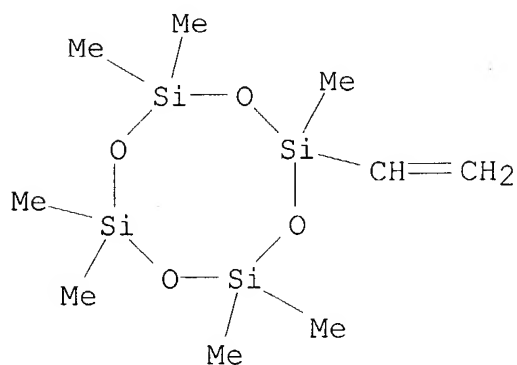
CMF C13 H20 O2



CM 2

CRN 3763-39-1

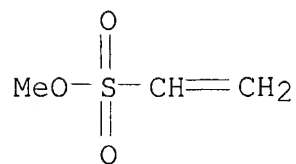
CMF C9 H24 O4 Si4



CM 3

CRN 1562-31-8

CMF C3 H6 O3 S



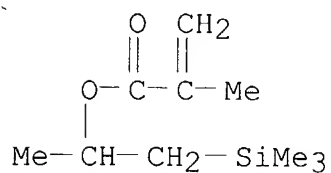
RN 648895-30-1 ZCA

CN 2-Propenoic acid, 2-methyl-, 1-methyl-2-(trimethylsilyl)ethyl ester,
polymer with ethenylheptamethylcyclotetrasiloxane and methyl
ethenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 409320-43-0

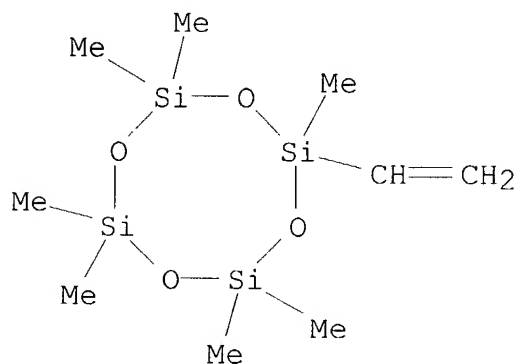
CMF C10 H20 O2 Si



CM 2

CRN 3763-39-1

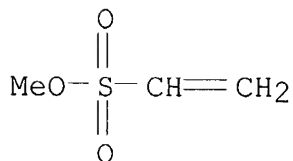
CMF C9 H24 O4 Si4



CM 3

CRN 1562-31-8

CMF C3 H6 O3 S



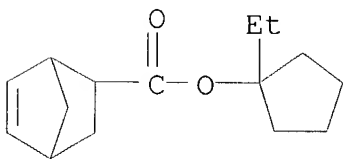
RN 648895-31-2 ZCA

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1-ethylcyclopentyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and methyl ethenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 279243-69-5

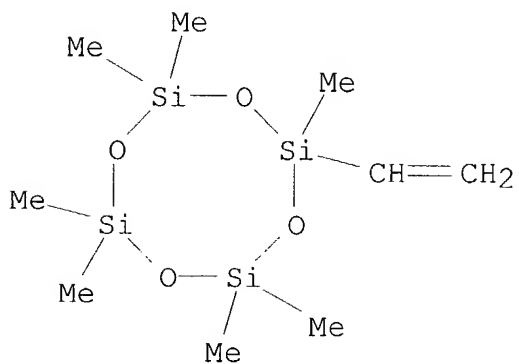
CMF C15 H22 O2



CM 2

CRN 3763-39-1

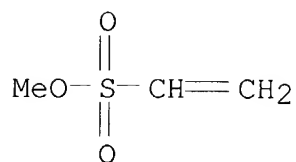
CMF C9 H24 O4 Si4



CM 3

CRN 1562-31-8

CMF C3 H6 O3 S



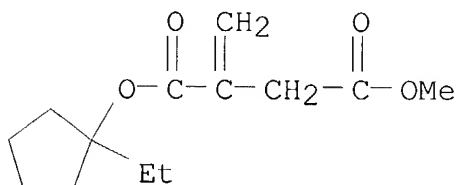
RN 648895-33-4 ZCA

CN Butanedioic acid, methylene-, 1-(1-ethylcyclopentyl) 4-methyl ester,
polymer with ethenylheptamethylcyclotetrasiloxane and methyl
ethenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 648895-32-3

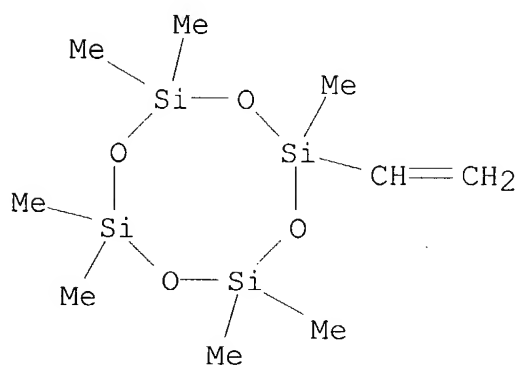
CMF C13 H20 O4



CM 2

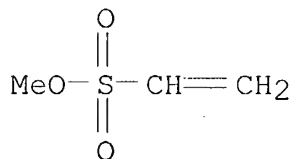
CRN 3763-39-1

CMF C9 H24 O4 Si4



CM 3

CRN 1562-31-8
CMF C3 H6 O3 S



L19 ANSWER 8 OF 59 ZCA COPYRIGHT 2004 ACS on STN

140:84642 Silicon-containing polymer, resist composition and patterning process. Takeda, Takanobu; Hatakeyama, Jun; Ishihara, Toshinobu (Japan). U.S. Pat. Appl. Publ. US 2004006191 A1 20040108, 20 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-611014 20030702. PRIORITY: JP 2002-192947 20020702.

IT **640728-38-7P 640728-39-8P 640728-40-1P**

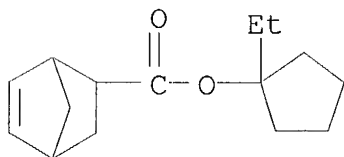
(silicon-containing polymer, resist composition and patterning process)

RN 640728-38-7 ZCA

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1-ethylcyclopentyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

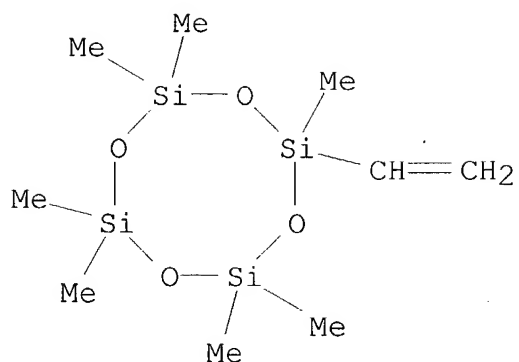
CM 1

CRN 279243-69-5
CMF C15 H22 O2



CM 2

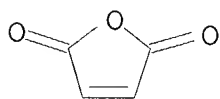
CRN 3763-39-1
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



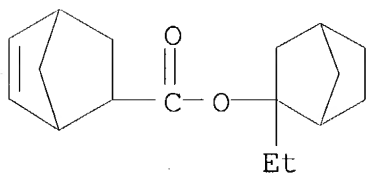
RN 640728-39-8 ZCA

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-ethylbicyclo[2.2.1]hept-2-yl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 330596-01-5

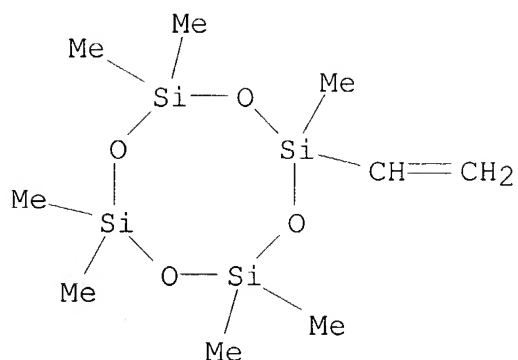
CMF C17 H24 O2



CM 2

CRN 3763-39-1

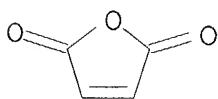
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



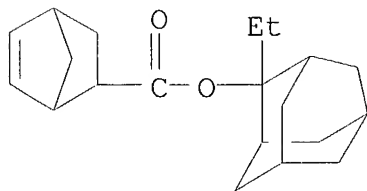
RN 640728-40-1 ZCA

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 328087-87-2

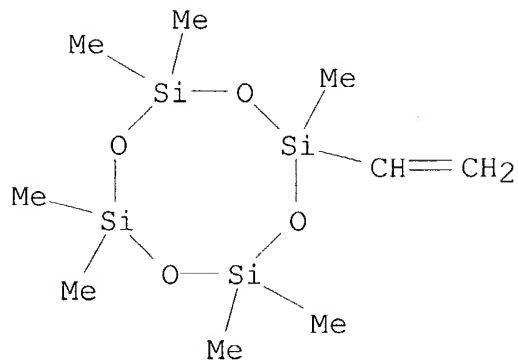
CMF C20 H28 O2



CM 2

CRN 3763-39-1

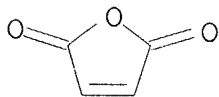
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



L19 ANSWER 9 OF 59 ZCA COPYRIGHT 2004 ACS on STN

140:60660 A novel hydrophobic pervaporation separation membrane based on concentrated emulsion. Shi, Shengpeng; Du, Zhongjie; Zhang, Chen; Li, Hangquan (The Key Laboratory of Beijing City on Preparation and Processing of Novel Polymer Materials, Beijing University of Chemical Technology, Beijing, 100029, Peop. Rep. China). Polymeric Materials Science and Engineering, 89, 440 (English) 2003. CODEN: PMSE DG. ISSN: 0743-0515. Publisher: American Chemical Society.

IT **637777-85-6P**

(hydrophobic pervaporation separation membrane based on concentrated emulsion)

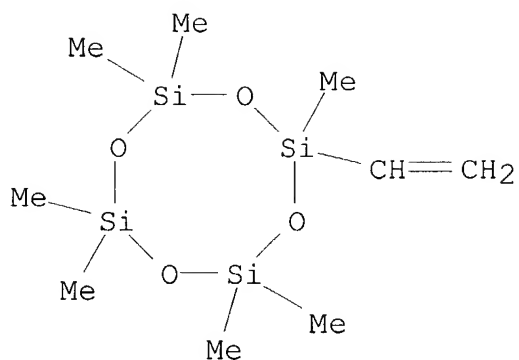
RN 637777-85-6 ZCA

CN Benzene, diethenyl-, polymer with ethenylbenzene, ethenylheptamethylcyclotetrasiloxane and octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

CMF C9 H24 O4 Si4

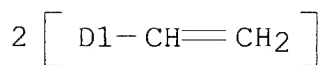
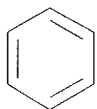


CM 2

CRN 1321-74-0

CMF C10 H10

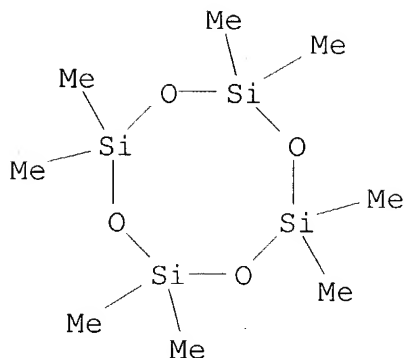
CCI IDS



CM 3

CRN 556-67-2

CMF C8 H24 O4 Si4



CM 4

CRN 100-42-5

CMF C8 H8

 $\text{H}_2\text{C}=\text{CH}-\text{Ph}$

L19 ANSWER 10 OF 59 ZCA COPYRIGHT 2004 ACS on STN

140:50319 Photoacid generating compounds, chemically amplified positive resist materials, and pattern forming method. Hatakeyama, Jun; Kobayashi, Tomohiro; Ohsawa, Youichi (Japan). U.S. Pat. Appl. Publ. US 2003235779 A1 20031225, 47 pp., Cont.-in-part of U.S. Pat. Appl. 2003 207,201. (English). CODEN: USXXCO. APPLICATION: US 2003-375773 20030227. PRIORITY: JP 2001-397192 20011227; US 2002-331785 20021227.

IT **635715-36-5 635715-38-7**

(resin; chemical amplified pos. resist materials containing)

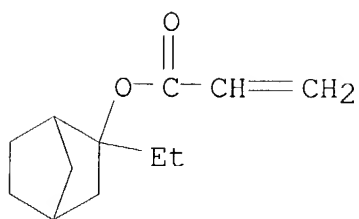
RN 635715-36-5 ZCA

CN 2-Propenoic acid, 2-ethylbicyclo[2.2.1]hept-2-yl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 449173-03-9

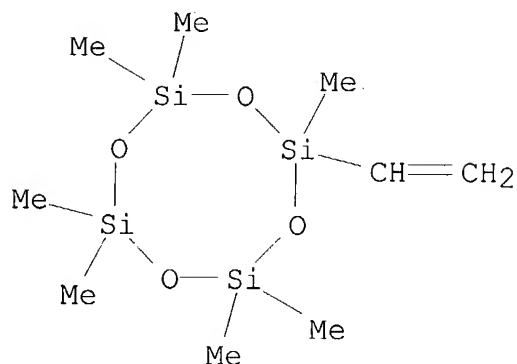
CMF C12 H18 O2



CM 2

CRN 3763-39-1

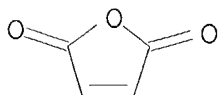
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



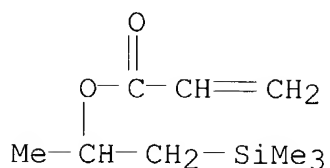
RN 635715-38-7 ZCA

CM 2-Propenoic acid, 1-methyl-2-(trimethylsilyl)ethyl ester, polymer
with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI)
(CA INDEX NAME)

CM 1

CRN 635715-37-6

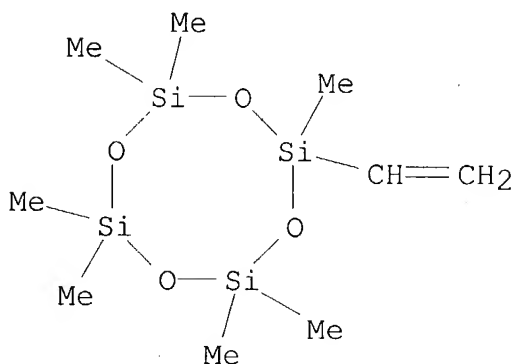
CMF C9 H18 O2 Si



CM 2

CRN 3763-39-1

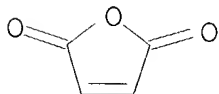
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



L19 ANSWER 11 OF 59 ZCA COPYRIGHT 2004 ACS on STN

139:267981 Photosensitive acid-generating agent, chemically amplified positively-working photoresist material, and patterning method. Hatakeyama, Jun; Kobayashi, Tomohiro; Osawa, Yoichi (Shin-Etsu Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003261529 A2 20030919, 49 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-369145 20021220. PRIORITY: JP 2001-397192 20011227.

IT 601520-60-9 601520-61-0

(photosensitive fluoroalkylimidic acid-generating agent for chemical

amplified pos.-working photoresist material)

RN 601520-60-9 ZCA

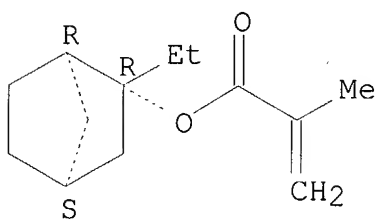
CN 2-Propenoic acid, 2-methyl-, (1R,2R,4S)-2-ethylbicyclo[2.2.1]hept-2-yl ester, rel-, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 271598-68-6

CMF C13 H20 O2

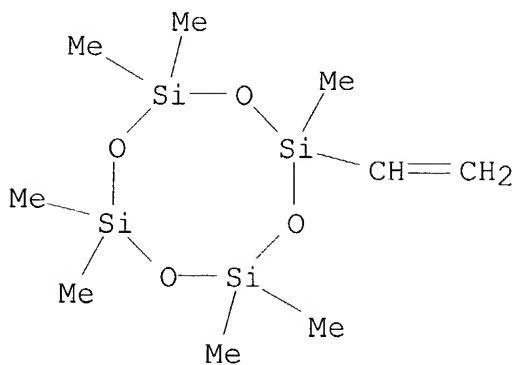
Relative stereochemistry.



CM 2

CRN 3763-39-1

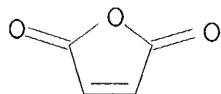
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



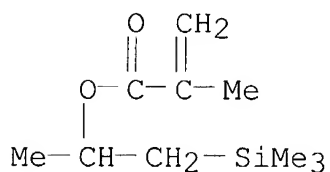
RN 601520-61-0 ZCA

CN 2-Propenoic acid, 2-methyl-, 1-methyl-2-(trimethylsilyl)ethyl ester,
polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione
(9CI) (CA INDEX NAME)

CM 1

CRN 409320-43-0

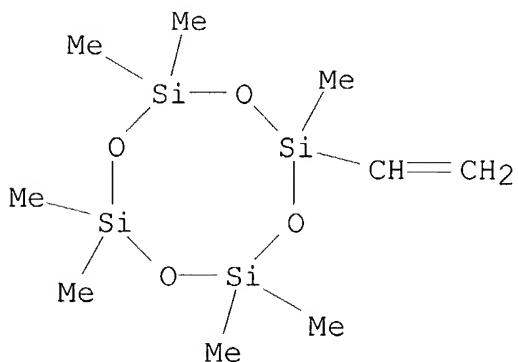
CMF C10 H20 O2 Si



CM 2

CRN 3763-39-1

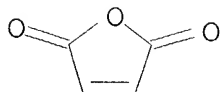
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



L19 ANSWER 12 OF 59 ZCA COPYRIGHT 2004 ACS on STN

139:53434 Synthesis of Branched Polysiloxanes with Controlled Branching and Functionalization by Anionic Ring-Opening Polymerization.

Chojnowski, J.; Cypryk, M.; Fortuniak, W.; Scibiorek, M.; Rozga-Wijas, K. (Center of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz, 90-363, Pol.). *Macromolecules*, 36(11), 3890-3897 (English) 2003. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

IT **548491-48-1DP**, trimethylsilyl-terminated

(dendritic; synthesis of branched polysiloxanes with controlled branching and functionalization by anionic ring-opening

polymerization)

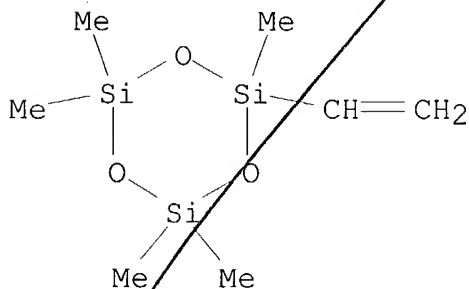
RN 548491-48-1 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with hexamethylcyclotrisiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

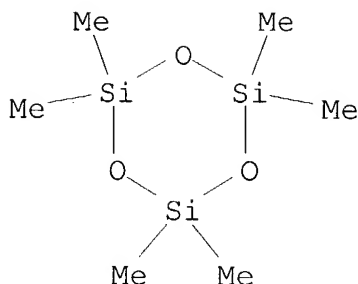
CMF C7 H18 O3 Si3



CM 2

CRN 541-05-9

CMF C6 H18 O3 Si3



IT **418801-57-7DP**, Hexamethylcyclotrisiloxane-2-vinyl-2,4,4,6,6-pentamethylcyclotrisiloxane copolymer, butyldimethylsilyl-terminated (star four arms; synthesis of branched polysiloxanes with controlled branching and functionalization by anionic ring-opening polymerization)

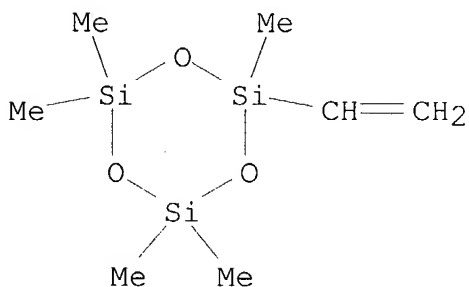
RN 418801-57-7 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with hexamethylcyclotrisiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

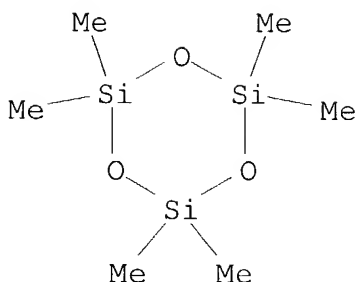
CMF C7 H18 O3 Si3



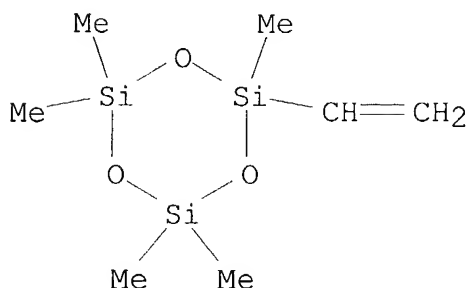
CM 2

CRN 541-05-9

CMF C6 H18 O3 Si3



IT **95243-85-9DP**, trimethylsilyl-terminated
 (synthesis of branched polysiloxanes with controlled branching
 and functionalization by anionic ring-opening polymerization)
 RN 95243-85-9 ZCA
 CN Cyclotrisiloxane, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX
 NAME)
 CM 1
 CRN 18395-32-9
 CMF C7 H18 O3 Si3

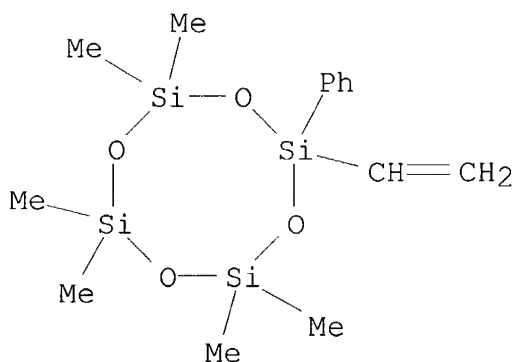


L19 ANSWER 13 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 137:353455 Chemoselective anionic ring-opening polymerization of
 cyclotetrasiloxanes. Teng, Conan James; Weber, William P. (D.P. and
 K. B. Loker Hydrocarbon Research Inst., Dept. of Chemistry,
 University of Southern California, Los Angeles, CA, 90089-1661,
 USA). Polymer Preprints (American Chemical Society, Division of
 Polymer Chemistry), 43(2), 1203-1204 (English) 2002. CODEN: ACPPAY.
 ISSN: 0032-3934. Publisher: American Chemical Society, Division of
 Polymer Chemistry.
 IT **474419-00-6P**
 (chemoselective anionic ring-opening polymerization of
 cyclotetrasiloxanes)

RN 474419-00-6 ZCA
 CN Cyclotetrasiloxane, 2-ethenyl-4,4,6,6,8,8-hexamethyl-2-phenyl-,
 homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 18551-64-9
 CMF C14 H26 O4 Si4



L19 ANSWER 14 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 137:202031 Preparation and patterning process of silicon-containing
 chemical amplification positive resist compositions. Takeda,
 Takanobu; Hatakeyama, Jun; Ishihara, Toshinobu; Kubota, Tohru;
 Kubota, Yasufumi (Shin-Etsu Chemical Co., Ltd., Japan). Eur. Pat.
 Appl. EP 1236745 A2 20020904, 33 pp. DESIGNATED STATES: R: AT, BE,
 CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT,
 LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW.
 APPLICATION: EP 2002-251419 20020228. PRIORITY: JP 2001-56543
 20010301.

IT **452912-31-1P**, Maleic anhydride-vinylheptamethylcyclotetrasil
 oxane copolymer **452912-33-3P**, Maleic anhydride-
 vinylheptamethylcyclotetrasiloxane-1-ethylcyclopentyl methacrylate
 copolymer **452912-35-5P**, Maleic anhydride-
 vinylheptamethylcyclotetrasiloxane-2-ethyl-2-adamantyl methacrylate
 copolymer
 (cured and uncured; silicon-containing chemical amplification pos.
 resist comps. and patterning process thereof)

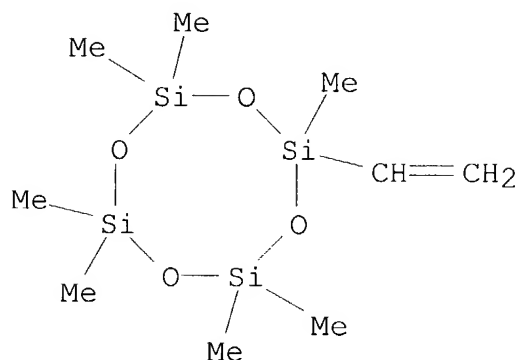
RN 452912-31-1 ZCA
 CN 2,5-Furandione, polymer with ethenylheptamethylcyclotetrasiloxane
 (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

APP.

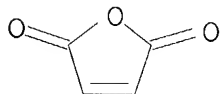
CMF C9 H24 O4 Si4



CM 2

CRN 108-31-6

CMF C4 H2 O3



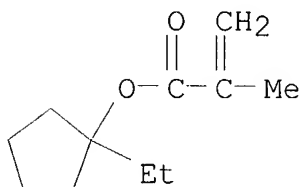
RN 452912-33-3 ZCA

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 266308-58-1

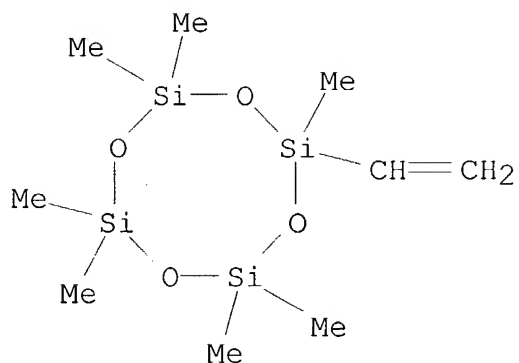
CMF C11 H18 O2



CM 2

CRN 3763-39-1

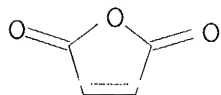
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



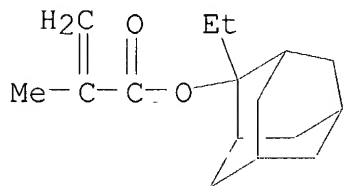
RN 452912-35-5 ZCA

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with ethenylheptamethylcyclotetrasiloxane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

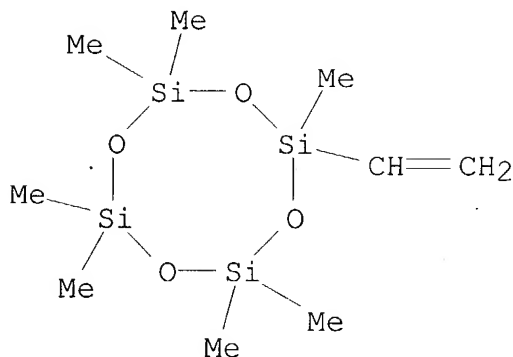
CMF C16 H24 O2



CM 2

CRN 3763-39-1

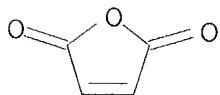
CMF C9 H24 O4 Si4



CM 3

CRN 108-31-6

CMF C4 H2 O3



L19 ANSWER 15 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 136:341098 Controlled synthesis of vinylmethylsiloxane-dimethylsiloxane
 gradient, block and alternate copolymers by anionic ROP of
 cyclotrisiloxanes. Chojnowski, J.; Cypryk, M.; Fortuniak, W.;
 Rozga-Wijas, K.; Scibiorek, M. (Polish Academy of Sciences, Centre
 of Molecular and Macromolecular Studies, Lodz, 90-363, Pol.).
 Polymer, 43(7), 1993-2001 (English) 2002. CODEN: POLMAG. ISSN:
 0032-3861. Publisher: Elsevier Science Ltd..

IT **95243-85-9P 287969-56-6P 418801-57-7P,**
 2-Vinyl-2,4,4,6,6-pentamethylcyclotrisiloxane-
 hexamethylcyclotrisiloxane copolymer **418807-74-6P**

(controlled synthesis of vinylmethylsiloxane-dimethylsiloxane
 gradient, block and alternate copolymers by anionic ROP of
 cyclotrisiloxanes)

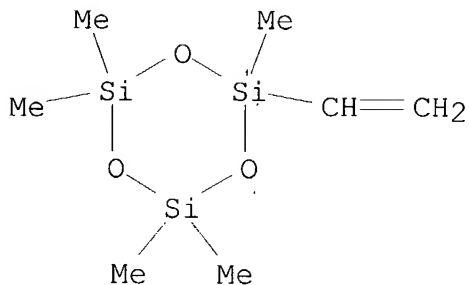
RN 95243-85-9 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX
 NAME)

CM 1

CRN 18395-32-9

CMF C7 H18 O3 Si3



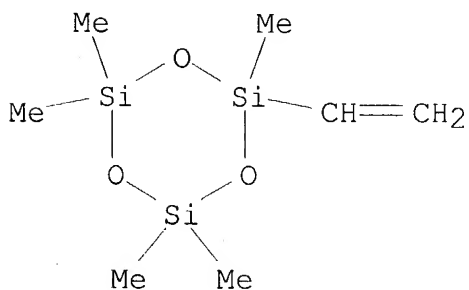
RN 287969-56-6 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with
hexamethylcyclotrisiloxane, block (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

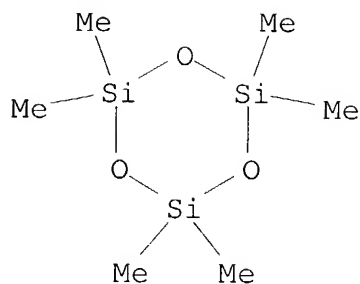
CMF C7 H18 O3 Si3



CM 2

CRN 541-05-9

CMF C6 H18 O3 Si3



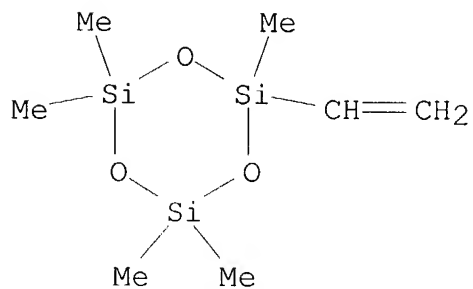
RN 418801-57-7 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with
hexamethylcyclotrisiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

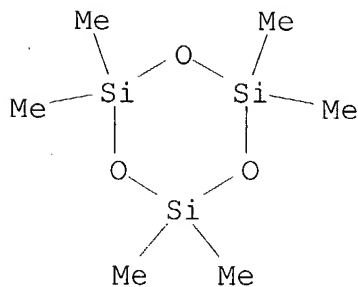
CMF C7 H18 O3 Si3



CM 2

CRN 541-05-9

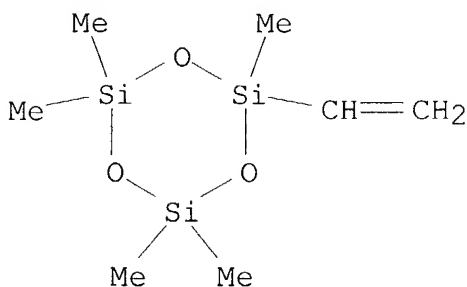
CMF C6 H18 O3 Si3



RN 418807-74-6 ZCA
 CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with
 hexamethylcyclotrisiloxane, alternating (9CI) (CA INDEX NAME)

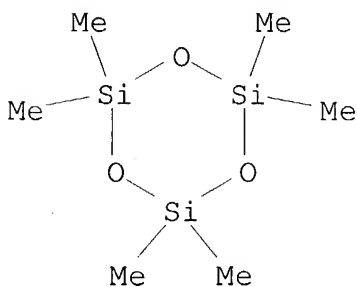
CM 1

CRN 18395-32-9
 CMF C7 H18 O3 Si3



CM 2

CRN 541-05-9
 CMF C6 H18 O3 Si3



L19 ANSWER 16 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 135:93045 Process for preparing α,ω -
 bis(trimethylsiloxy)poly(methylvinylsiloxane-co-dimethylsiloxane).
 Giurgiu, Diana Elisabeta; Hamciuc, Viorica; Pricop, Lucia; Onceriu,
 Livia Iolanda (Institutul de Chimie Macromoleculara "Petru Poni",
 Iasi, Rom.). Rom. RO 115643 B3 20000428, 4 pp. (Romanian). CODEN:
 RUXXA3. APPLICATION: RO 1992-9201637 19921229.
 IT **95243-84-8DP**, Heptamethylvinylcyclotetrasiloxane-
 octamethylcyclotetrasiloxane copolymer, trimethylsilyl-terminated

349099-33-8DP, trimethylsilyl-terminated
(preparation of vinyl group-containing polysiloxanes)

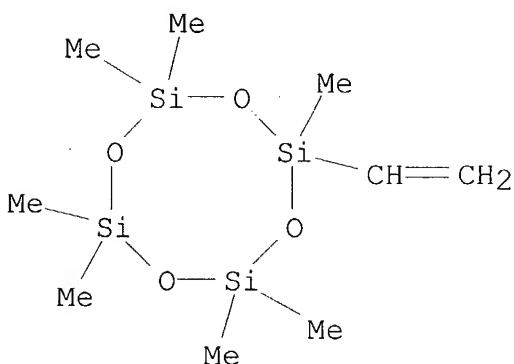
RN 95243-84-8 ZCA

CN Cyclotetrasiloxane, ethenylheptamethyl-, polymer with
octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

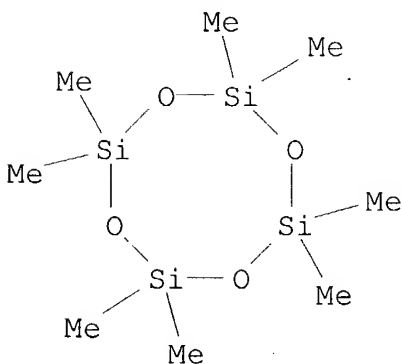
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

CMF C8 H24 O4 Si4



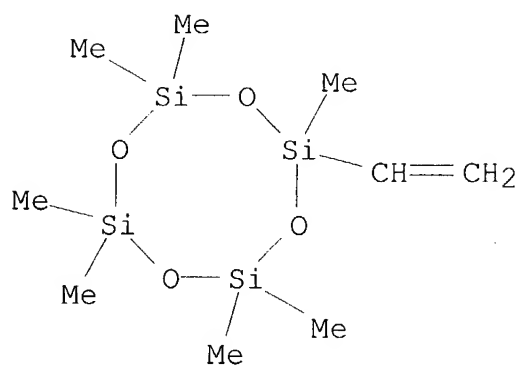
RN 349099-33-8 ZCA

CN Cycloheptasiloxane, tetradecamethyl-, polymer with
decamethylcyclopentasiloxane, dodecamethylcyclohexasiloxane,
ethenylheptamethylcyclotetrasiloxane, hexamethylcyclotrisiloxane and
octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

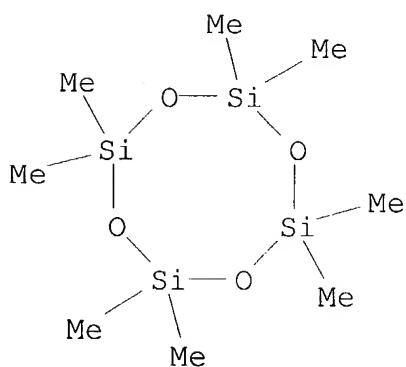
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

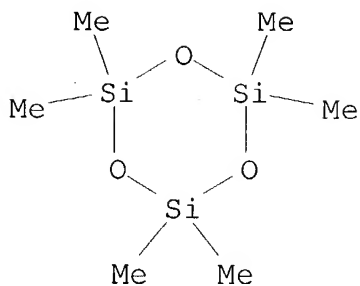
CMF C8 H24 O4 Si4



CM 3

CRN 541-05-9

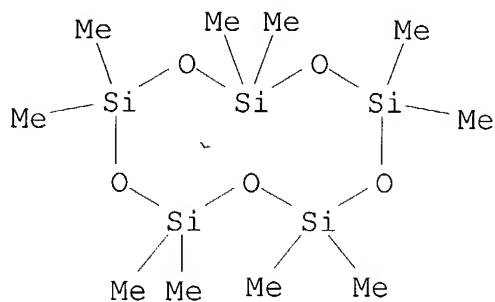
CMF C6 H18 O3 Si3



CM 4

CRN 541-02-6

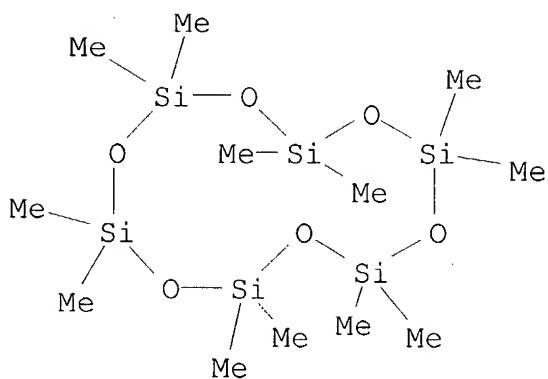
CMF C10 H30 O5 Si5



CM 5

CRN 540-97-6

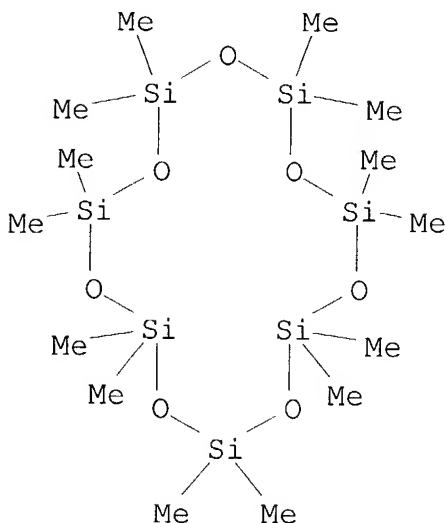
CMF C12 H36 O6 Si6



CM 6

CRN 107-50-6

CMF C14 H42 O7 Si7



L19 ANSWER 17 OF 59 ZCA COPYRIGHT 2004 ACS on STN

133:164419 Controlled synthesis of amphiphilic siloxane-siloxane block copolymers with carboxyl functions. Scibiorek, Marek; Gladkova, Natalia K.; Chojnowski, Julian (Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz, 90-363, Pol.). Polymer Bulletin (Berlin), 44(4), 377-384 (English) 2000. CODEN: POBUDR. ISSN: 0170-0839. Publisher: Springer-Verlag.

IT **287969-56-6DP**, butyldimethylsilyl and trimethylsilyl-terminated, reaction products with mercaptoacetic acid (controlled synthesis of amphiphilic siloxane-siloxane block copolymers with carboxyl functions)

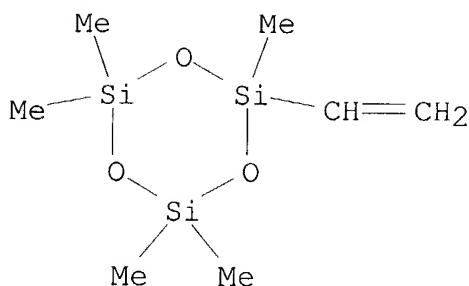
RN 287969-56-6 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with hexamethylcyclotrisiloxane, block (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

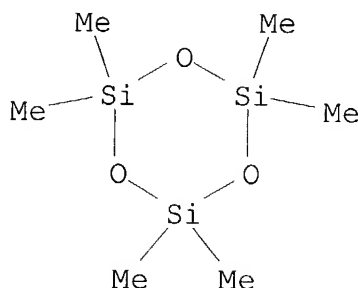
CMF C7 H18 O3 Si3



CM 2

CRN 541-05-9

CMF C6 H18 O3 Si3



(precopolymer; controlled synthesis of amphiphilic
siloxane-siloxane block copolymers with carboxyl functions

L19 ANSWER 18 OF 59 ZCA COPYRIGHT 2004 ACS on STN

133:120703 Dependence of reaction ability of organo-cyclosiloxanes to
polymerization on polarity of substituent at silicon atom.

Khananashvili, L. M.; Gverdtsiteli, M. I.; Kubaneishvili, I. B.;

Tsomaya, N. I.; Markarashvili, E. G.; Vardosanidze, Ts. N.;

Girgveliani, D. A. (I. Javakashvili Tbilisi State University,
Tbilisi, 380038, Georgia). Russian Polymer News, 5(1), 23-27

(English) 2000. CODEN: RPONFY. ISSN: 1093-2984. Publisher:
AM-RUSS Rubber and Plastics Consulting.

IT **25085-97-6P**, Heptamethylvinylcyclotetrasiloxane homopolymer
(substituent polarity effect of substituted
heptamethylcyclotetrasiloxane monomers on their polymerization)

RN 25085-97-6 ZCA

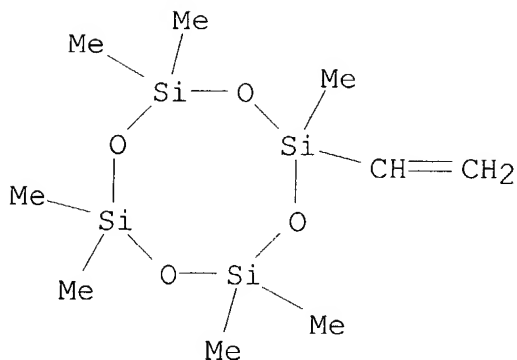
CN Cyclotetrasiloxane, ethenylheptamethyl-, homopolymer (9CI) (CA
INDEX NAME)

Use 34 or 45

CM 1

CRN 3763-39-1

CMF C9 H24 O4 Si4



L19 ANSWER 19 OF 59 ZCA COPYRIGHT 2004 ACS on STN

132:348850 Process for manufacture of methylvinylsiloxane elastomer.

Marcu, Mihai; Stanciu, Aurelian (Rom.). Rom. RO 111198 B1 19960730,
3 pp. (Romanian). CODEN: RUXXA3. APPLICATION: RO 1991-148913
19911209.

IT **103737-84-4P**, Decamethylcyclopentasiloxane-
heptamethylvinylcyclotetrasiloxane-hexamethylcyclotrisiloxane-
octamethylcyclotetrasiloxane copolymer

(efficient process for manufacture of high mol. weight
methylvinylsiloxane elastomer with subsequent catalyst
decomposition)

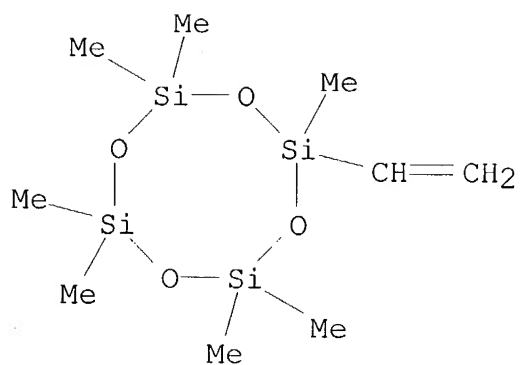
RN 103737-84-4 ZCA

CN Cyclopentasiloxane, decamethyl-, polymer with
ethenylheptamethylcyclotetrasiloxane, hexamethylcyclotrisiloxane and
octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

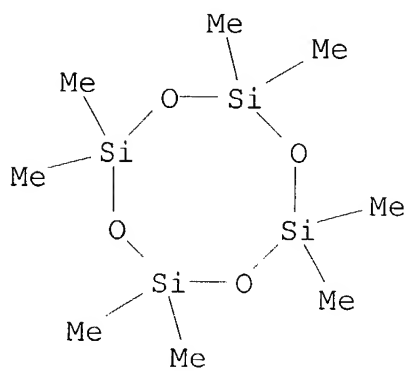
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

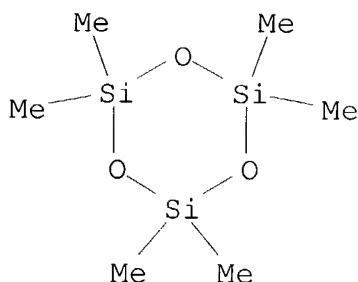
CMF C8 H24 O4 Si4



CM 3

CRN 541-05-9

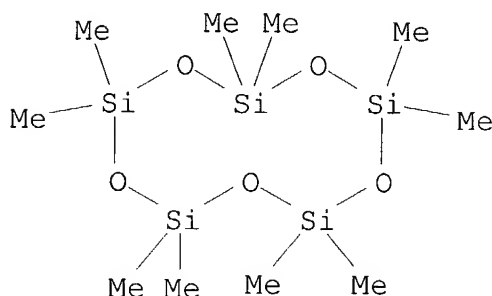
CMF C6 H18 O3 Si3



CM 4

CRN 541-02-6

CMF C10 H30 O5 Si5



L19 ANSWER 20 OF 59 ZCA COPYRIGHT 2004 ACS on STN

131:215141 Curable silicone resin compositions with reduced migration of low molecular weight components or functionless components.

Yamaguchi, Hiromasa; Kinoshita, Hirofumi; Yamaguchi, Koichi
(Shin-Etsu Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo~~Kōho JP 11246772~~ A2 19990914 Heisei, 10 pp. (Japanese). CODEN:

JKXXAF. APPLICATION: JP 1998-64772 19980227.

IT **243658-94-8DP**, vinyl dimethylsilyl-terminated**243658-96-0DP**, vinyl dimethylsilyl-terminated

(manufacture of curable silicone resin compns. with reduced migration

of low mol. weight components or functionless components)

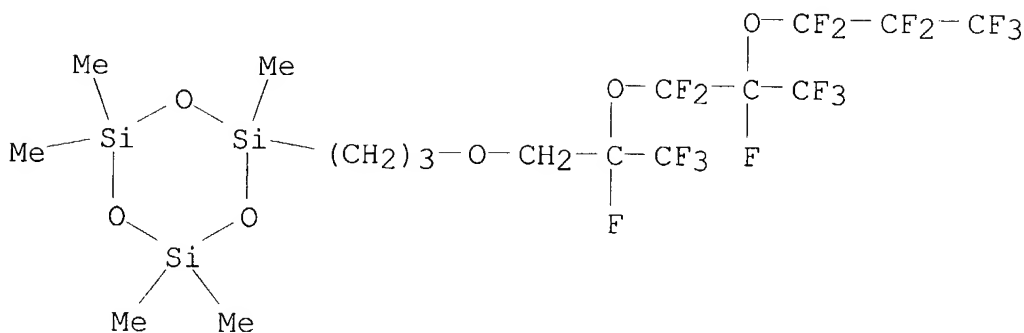
RN 243658-94-8 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, polymer (with)
pentamethyl[3-[2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]propoxy]propyl]cyclotrisiloxane (9CI)
(CA INDEX NAME)

CM 1

CRN 122734-44-5

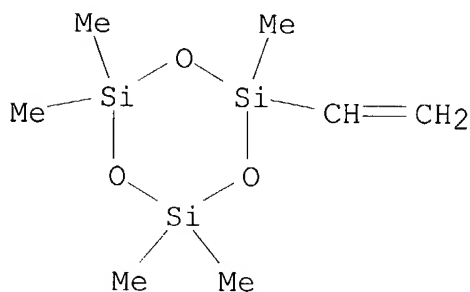
CMF C17 H23 F17 O6 Si3



CM 2

CRN 18395-32-9

CMF C7 H18 O3 Si3



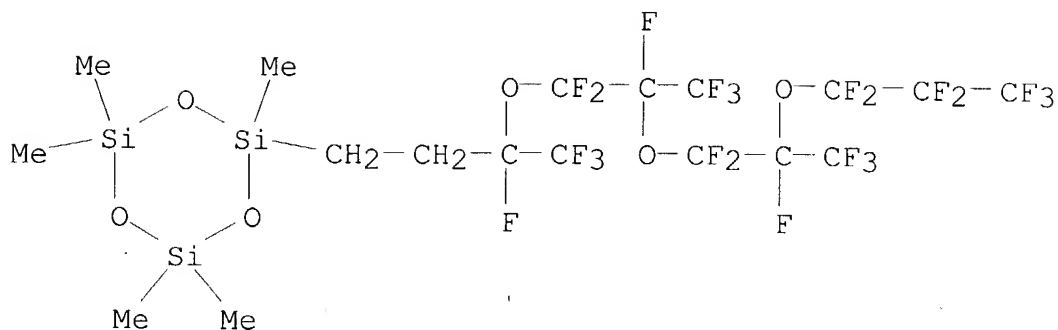
RN 243658-96-0 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with
 pentamethyl[3,4,4,4-tetrafluoro-3-[1,1,2,3,3,3-hexafluoro-2-
 [1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]propoxy]butyl]
 cyclotrisiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 135201-47-7

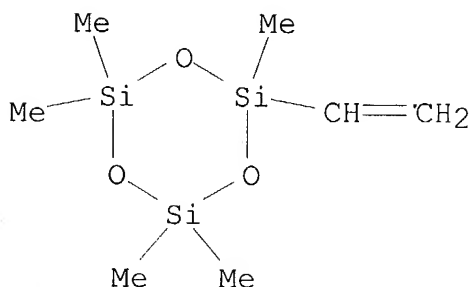
CMF C18 H19 F23 O6 Si3



CM 2

CRN 18395-32-9

CMF C7 H18 O3 Si3



L19 ANSWER 21 OF 59 ZCA COPYRIGHT 2004 ACS on STN

131:116633 Modification of polysiloxanes by free-radical addition of pyridylthiols to the vinyl groups of the polymer. Herczynska, Lucyna; Lestel, Laurence; Boileau, Sylvie; Chojnowski, Julian; Polowinski, Stefan (Laboratoire de Chimie Macromoleculaire associe au CNRS: URA 24, College de France, Paris, 75231, Fr.). European Polymer Journal, 35(6), 1115-1122 (English) 1999. CODEN: EUPJAG. ISSN: 0014-3057. Publisher: Elsevier Science Ltd..

IT **95243-85-9DP**, reaction products with (pyridyl)ethanethiol and pyridylthiol

(modification of polysiloxanes by free-radical addition of pyridylthiols to vinyl groups)

RN 95243-85-9 ZCA

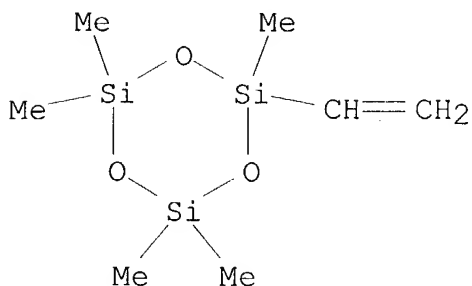
CN Cyclotrisiloxane, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

Use

55 or 47

CRN 18395-32-9
CMF C7 H18 O3 Si3



L19 ANSWER 22 OF 59 ZCA COPYRIGHT 2004 ACS on STN

131:103042 Polysiloxanes having reactive organic groups, inorganic materials surface-treated with them, and their compositions. Ando, Eiji; Yasuda, Hirofumi; Takahashi, Susumu (Nippon Unicar Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11172000 A2 19990629 Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-363637 19971216.

IT **229473-78-3P**

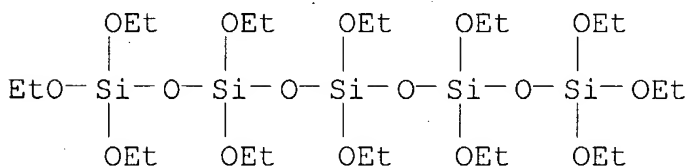
(polysiloxanes having reactive organic groups and their compns. for surface treatment of inorg. materials)

RN 229473-78-3 ZCA

CN Cyclotetrasiloxane, ethenylheptamethyl-, polymer with dodecaethoxypentasiloxane (9CI) (CA INDEX NAME)

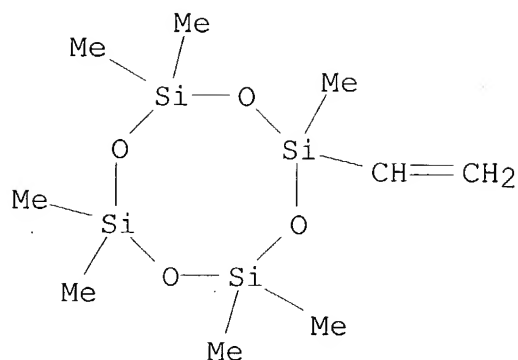
CM 1

CRN 4935-68-6
CMF C24 H60 O16 Si5



CM 2

CRN 3763-39-1
CMF C9 H24 O4 Si4



L19 ANSWER 23 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 129:162129 Synthesis and properties of polyacrylate - polyorganosiloxane composite latex. Zhao, Peizhen; Kan, Chengyou; Zhu, Xiaoli; Kong, Xiangzheng (Dep. Chem., Shandong Univ., Jinan, Peop. Rep. China). Hecheng Xiangjiao Gongye, 21(4), 217-219 (Chinese) 1998. CODEN: HXGOEA. ISSN: 1000-1255. Publisher: Lanzhou Huaxue Gongye Gongsì Huagong Yanjiuyuan.

IT **211117-74-7P**, Butyl acrylate-methacrylic acid-methyl methacrylate-octamethylcyclotetrasiloxane-vinylheptamethylcyclotetrasiloxane graft copolymer (synthesis and properties of polyacrylate-polyorganosiloxane composite latex)

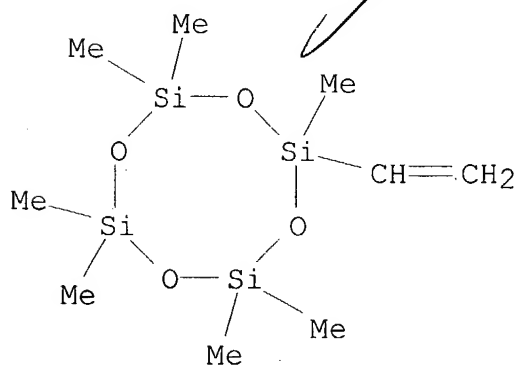
RN 211117-74-7 ZCA

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylheptamethylcyclotetrasiloxane, methyl 2-methyl-2-propenoate and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

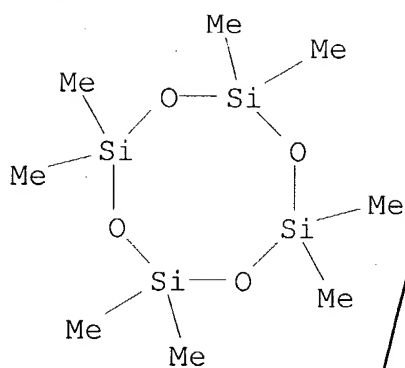
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

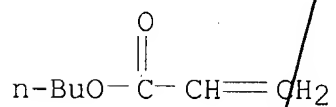
CMF C8 H24 O4 Si4



CM 3

CRN 141-32-2

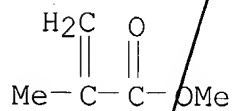
CMF C7 H12 O2



CM 4

CRN 80-62-6

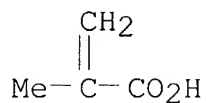
CMF C5 H8 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



L19 ANSWER 24 OF 59 ZCA COPYRIGHT 2004 ACS on STN

128:89214 Graft emulsion copolymerization of acrylates and siloxane.

Kan, Cheng-You; Zhu, Xiao-Li; Yuan, Qing; Kong, Xiang-Zheng
(Department of Chemistry, Shandong University, Jinan, 250100, Peop.
Rep. China). Polymers for Advanced Technologies, 8(11), 631-633
(English) 1997. CODEN: PADTE5. ISSN: 1042-7147. Publisher: John
Wiley & Sons Ltd..

IT **200882-27-5P**, Butyl acrylate-heptamethylvinylcyclotetrasiloxane-methyl methacrylate-octamethylcyclotetrasiloxane graft copolymer (graft emulsion copolymn. of acrylates and siloxane and mech. products of such products)

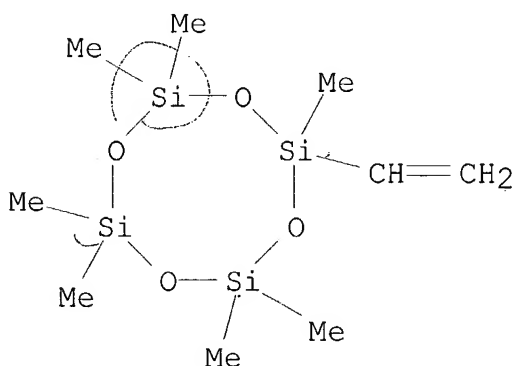
RN 200882-27-5 ZCA

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, ethenylheptamethylcyclotetrasiloxane and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

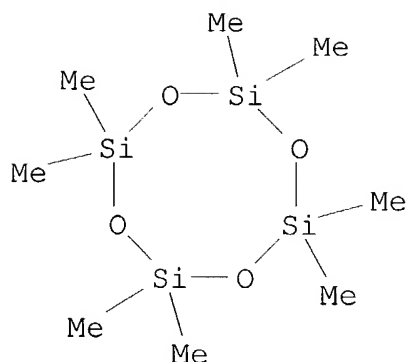
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

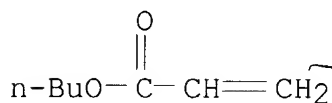
CMF C8 H24 O4 Si4



CM 3

CRN 141-32-2

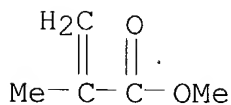
CMF C7 H12 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



*Not adhesive gp
nor acid-labile gp.*

L19 ANSWER 25 OF 59 ZCA COPYRIGHT 2004 ACS on STN

128:76215 Ion transport across membranes prepared by gel

crystallization. Klok, Harm-Anton; Eibeck, Peter; Gankema, Harold; Nieuwhof, Rene P.; Moller, Martin; Reinhoudt, David N. (Organische Chemie III/Makromolekulare Chemie Universitat Ulm, Ulm, D-89069, Germany). Journal of Polymer Science, Part B: Polymer Physics, 36(2), 383-394 (English) 1998. CODEN: JPBPEM. ISSN: 0887-6266. Publisher: John Wiley & Sons, Inc..

IT 200552-56-3

(membrane; ion transport across membranes prepared by gel crystallization)

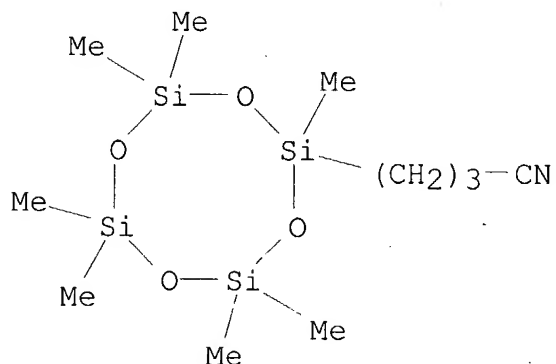
RN 200552-56-3 ZCA

CN Cyclotetrasiloxanebutanenitrile, 2,4,4,6,6,8,8-heptamethyl-, polymer
with ethenylheptamethylcyclotetrasiloxane and
octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 20272-43-9

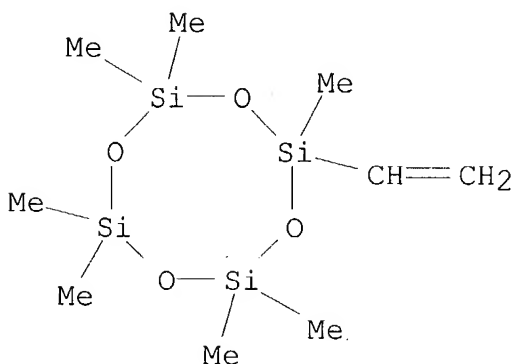
CMF C11 H27 N O4 Si4



CM 2

CRN 3763-39-1

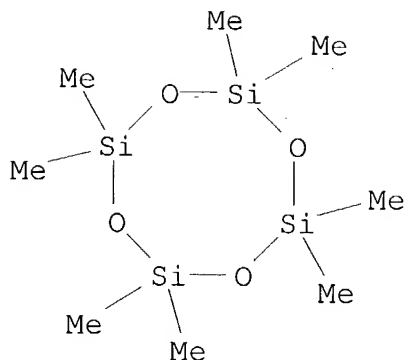
CMF C9 H24 O4 Si4



CM 3

CRN 556-67-2

CMF C8 H24 O4 Si4



L19 ANSWER 26 OF 59 ZCA COPYRIGHT 2004 ACS on STN

126:89877 Side-Chain Liquid-Crystalline Polysiloxanes via Anionic Polymerization: (n-Undecyloxyarenecarboxylic Acid Mesogens Linked to Poly(dimethylsiloxane-co-methylvinylsiloxane)). Hempenius, Mark A.; Lammertink, Rob G. H.; Vancso, G. Julius (University of Twente, Enschede, 7500 AE, Neth.). *Macromolecules*, 30(2), 266-272 (English) 1997. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

IT **95243-85-9DP**, tert-butyldimethylsilyl- and trimethylsilyl-terminated, reaction products with n-undecylarenecarboxylates, hydrogenolyzates (preparation of side-chain liquid-crystalline siloxanes containing (n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

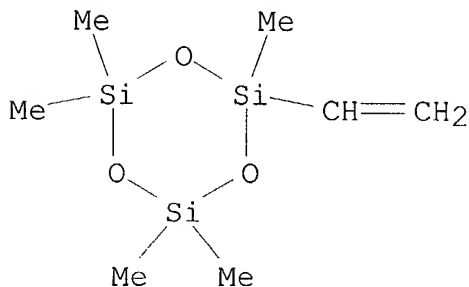
RN 95243-85-9 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

CMF C7 H18 O3 Si3



use 47 or
51

L19 ANSWER 27 OF 59 ZCA COPYRIGHT 2004 ACS on STN

126:75529 Preparation of polyacrylate-polysiloxane core-shell latex particles. Kong, Xiang Zheng; Kan, Cheng You; Yuan, Qing (Department Chemistry, Shandong University, Jinan, 250100, Peop. Rep. China). Polymers for Advanced Technologies, 7(12), 888-890 (English) 1996. CODEN: PADTE5. ISSN: 1042-7147. Publisher: Wiley.

IT 185500-25-8P, Butyl acrylate-ethylene glycol dimethacrylate-methacrylic acid-methyl methacrylate-octamethyltetracyclosiloxane-vinylheptamethyltetrasiloxane copolymer (core-shell; preparation and characterization of polyacrylate-polysiloxane core-shell latex particles)

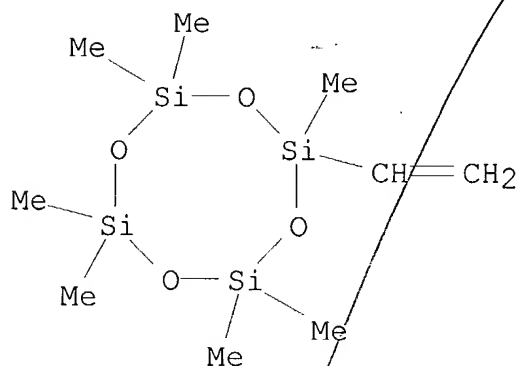
RN 185500-25-8 ZCA

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, 1,2-ethanediyl bis(2-methyl-2-propenoate), ethenylheptamethylcyclotetrasiloxane, methyl 2-methyl-2-propenoate and octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

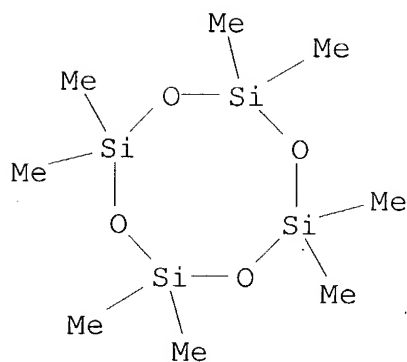
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

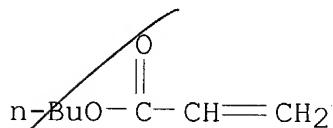
CMF C8 H24 O4 Si4



CM 3

CRN 141-32-2

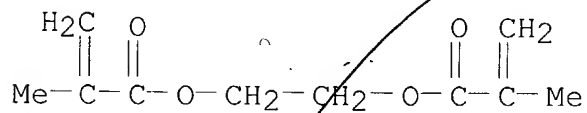
CMF C7 H12 O2



CM 4

CRN 97-90-5

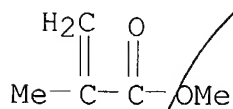
CMF C10 H14 O4



CM 5

CRN 80-62-6

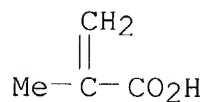
CMF C5 H8 O2



CM 6

CRN 79-41-4

CMF C4 H6 O2



L19 ANSWER 28 OF 59 ZCA COPYRIGHT 2004 ACS on STN

125:329695 Well-defined side-chain liquid-crystalline polysiloxanes.

[Erratum to document cited in CA125:34305]. Hempenius, Mark A.; Lammertink, Rob G. H.; Vancso, G. Julius (Univ. of Twente, Enschede, 7500, Neth.). Macromolecular Rapid Communications, 17(11), 843 (English) 1996. CODEN: MRCOE3. ISSN: 1022-1336. Publisher: Huethig & Wepf.

IT **95243-85-9DP**, reaction products with 4-cyano-4'-(ω -pentenyl)oxy)biphenyl or 4-cyano-4'-(ω -decenyl)oxy)biphenyl (preparation of side-chain liquid-crystalline polysiloxanes with biphenyl side-chain groups (Erratum))

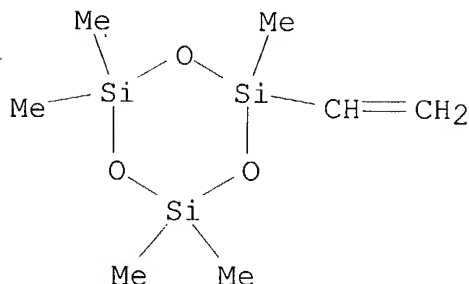
RN 95243-85-9 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

CMF C7 H18 O3 Si3



Use

d

47 or 55

IT **95243-85-9P**

(preparation of side-chain liquid-crystalline polysiloxanes with biphenyl side-chain groups (Erratum))

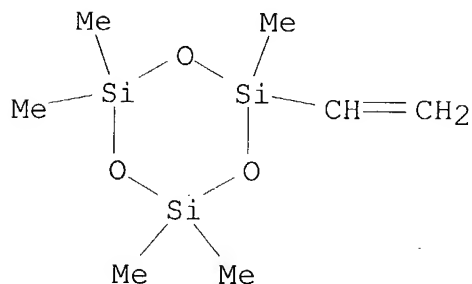
RN 95243-85-9 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

CMF C7 H18 O3 Si3



L19 ANSWER 29 OF 59 ZCA COPYRIGHT 2004 ACS on STN

125:34305 Well-defined side-chain liquid-crystalline polysiloxanes.

Hempenius, Mark A.; Lammertink, Rob G. H.; Vancso, G. Julius (Univ. of Twente, Enschede, 7500, Neth.). Macromolecular Rapid Communications, 17(5), 299-303 (English). 1996. CODEN: MRCOE3.

ISSN: 1022-1336. Publisher: Huethig & Wepf.

IT **95243-85-9DP**, reaction products with 4-cyano-4'-(ω -pentenyl)oxy)biphenyl or 4-cyano-4'-(ω -decenyloxy)biphenyl (preparation of side-chain liquid-crystalline polysiloxanes with biphenyl side-chain groups)

RN 95243-85-9 ZCA

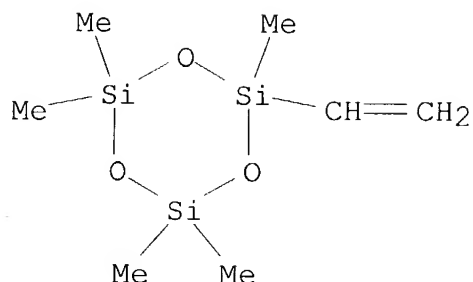
CN Cyclotrisiloxane, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

CMF C7 H18 O3 Si3

use 55 or 47

IT **95243-85-9P**

(preparation of side-chain liquid-crystalline polysiloxanes with biphenyl side-chain groups)

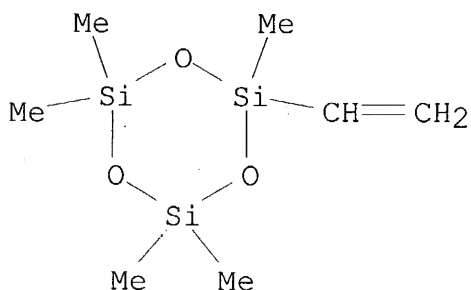
RN 95243-85-9 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

CMF C7 H18 O3 Si3



L19 ANSWER 30 OF 59 ZCA COPYRIGHT 2004 ACS on STN

124:204666 Preparation of methyl vinyl silicone rubbers. Marcu, Mihai; Streba, Emilia; Stiubianu, Gheorghe; Bolohan, Stefan (Combinatul Petrochimic, Borzesti, Rom.). Rom. RO 104964 B1 19941219, 4 pp. (Romanian). CODEN: RUXXA3. APPLICATION: RO 1989-141732 19890922.

IT **95243-84-8DP**, Heptamethylvinylcyclotetrasiloxane-octamethylcyclotetrasiloxane copolymer, trimethylsilyl-terminated (rubber; preparation of Me vinyl silicone rubbers with narrow mol.-weight distribution)

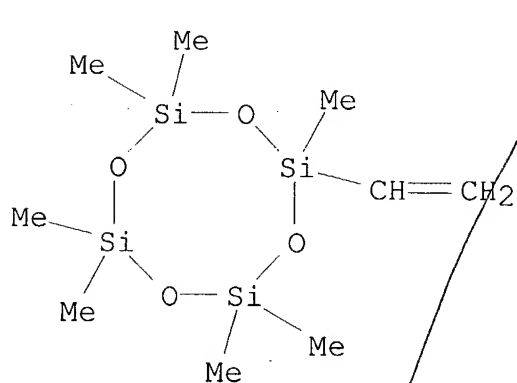
RN 95243-84-8 ZCA

CN Cyclotetrasiloxane, ethenylheptamethyl-, polymer with octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

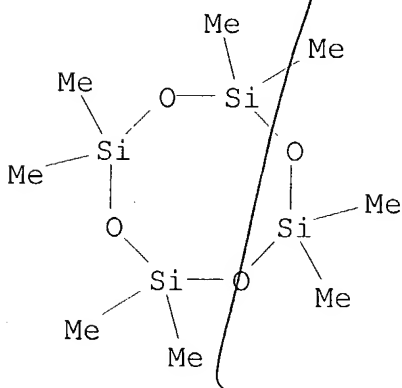
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

CMF C8 H24 O4 Si4



L19 ANSWER 31 OF 59 ZCA COPYRIGHT 2004 ACS on STN

124:203266 Controlled Synthesis of Siloxane Copolymers Having an Organosulfur Group by Polymerization of Cyclotrisiloxanes with Mixed Units. Rozga-Wijas, K.; Chojnowski, J.; Zundel, T.; Boileau, S. (Center of Molecular and Macromolecular Studies, Polish Academy of Sciences, Lodz, 90-363, Pol.). Macromolecules, 29(8), 2711-20 (English) 1996. CODEN: MAMOBX. ISSN: 0024-9297. Publisher:

use 55 or 47 instead

American Chemical Society.

IT **95243-85-9DP**, reaction products with alkylthiols
(controlled synthesis of siloxane copolymers having an
organosulfur group by polymerization of cyclotrisiloxanes with
mixed units)

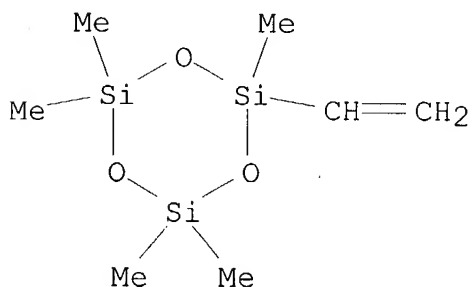
RN 95243-85-9 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX
NAME)

CM 1

CRN 18395-32-9

CMF C7 H18 O3 Si3



IT **95243-85-9P**, 1,3,3,5,5-Pentamethyl-1-vinylcyclotrisiloxane
homopolymer

(intermediate; controlled synthesis of siloxane copolymers having
an organosulfur group by polymerization of cyclotrisiloxanes with
mixed units)

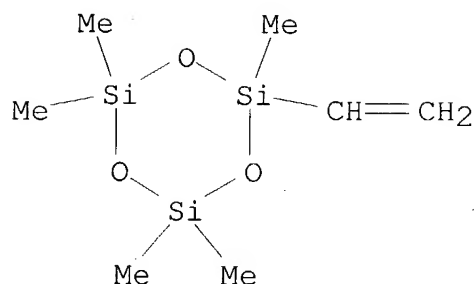
RN 95243-85-9 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX
NAME)

CM 1

CRN 18395-32-9

CMF C7 H18 O3 Si3



L19 ANSWER 32 OF 59 ZCA COPYRIGHT 2004 ACS on STN

122:266288 Preparation of linear fluorine-containing siloxanes by polymerization of cyclotrisiloxanes. Inomata, Hiroshi; Fukuda, Kenichi; Kishita, Hirofumi; Saito, Yoshikazu; Yamaguchi, Kouichi; Kobayashi, Nobuyuki (Shin-Etsu Chemical Co., Ltd., Japan). Eur. Pat. Appl. EP 611785 A2 19940824, 37 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1994-301073 19940215. PRIORITY: JP 1993-50100 19930215; JP 1993-50101 19930215; JP 1993-50102 19930215.

IT **162738-64-9P 162738-65-0P**

(lithium silanolate catalysts for preparation of linear)

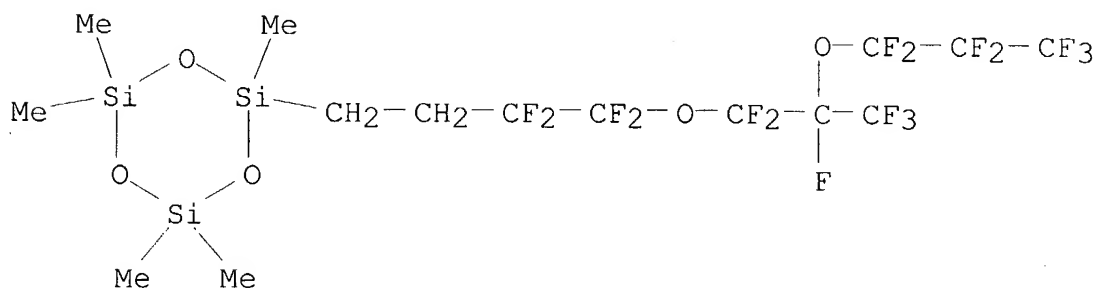
RN 162738-64-9 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with pentamethyl[3,3,4,4-tetrafluoro-4-[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]butyl]cyclotrisiloxane (9CI) (CA INDEX NAME)

CM 1

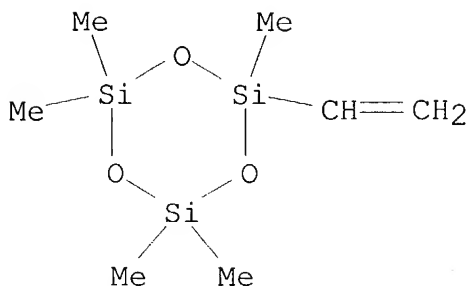
CRN 149538-26-1

CMF C15 H19 F17 O5 Si3



CM 2

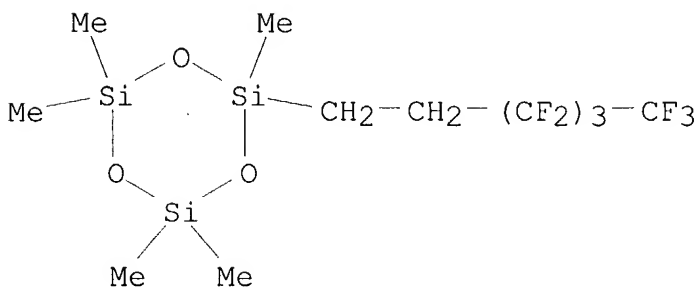
CRN 18395-32-9
CMF C7 H18 O3 Si3



RN 162738-65-0 ZCA
CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with
pentamethyl(3,3,4,4,5,5,6,6,6-nonafluorohexyl)cyclotrisiloxane (9CI)
(CA INDEX NAME)

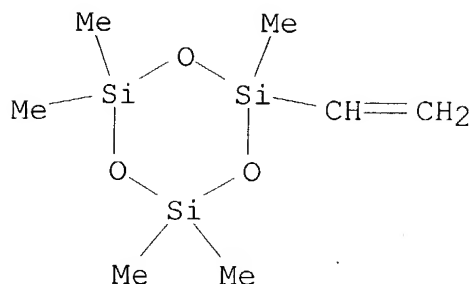
CM 1

CRN 122734-54-7
CMF C11 H19 F9 O3 Si3



CM 2

CRN 18395-32-9
CMF C7 H18 O3 Si3



L19 ANSWER 33 OF 59 ZCA COPYRIGHT 2004 ACS on STN

116:237151 Electrically conducting vulcanizates based on polymerization-filled organosilicon elastomers. Aneli, D. N.; Pagava, D. G.; Kakuliya, Ts. V.; Tsomaya, N. I. (Gruz. NII Energ. Gidrosooru Zhen., Tbilisi, USSR). Kauch.-89: Probl. Razvit. Nauki Proizvod., Mater. Vses. Nauchno-Tekh. Konf., Meeting Date 1989, 154-8. Editor(s): Kormer, V. A. TsNIITeneftexhim: Moscow, USSR. (Russian) 1990. CODEN: 56YHAA.

IT **95243-84-8**, Heptamethylvinylcyclotetrasiloxane-octamethylcyclotetrasiloxane copolymer
(rubber, thermally treated graphite-filled, elec. conductivity and properties of)

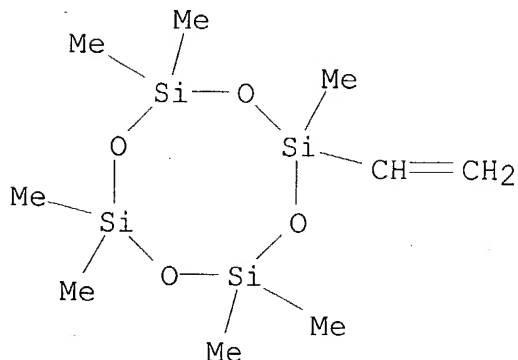
RN 95243-84-8 ZCA

CN Cyclotetrasiloxane, ethenylheptamethyl-, polymer with octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

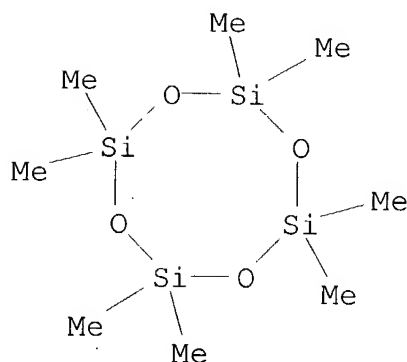
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

CMF C8 H24 O4 Si4



L19 ANSWER 34 OF 59 ZCA COPYRIGHT 2004 ACS on STN

116:106943 Synthesis, of 1-vinyl-1,5,5-trimethyl-3,3,7,7-tetraphenyl-cyclotetrasiloxane and polymers based on it. Khananashvili, L. M.; Akhobadze, D. Sh.; Otiashvili, D. V.; Andronikashvili, G. Sh.; Giorgobiani, N. G. (USSR). Izvestiya Akademii Nauk Gruzii, Seriya Khimicheskaya, 17(1), 23-6 (Georgian) 1991. CODEN: IANKEJ.

IT **139196-40-0P 139196-41-1P**

(preparation and thermal stability of)

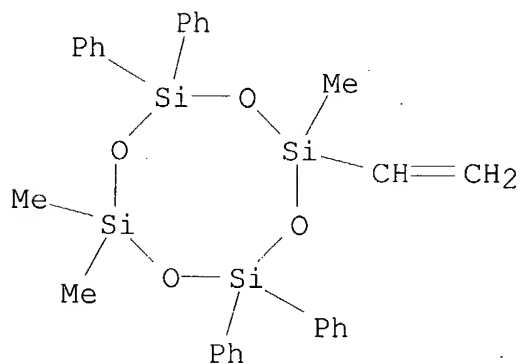
RN 139196-40-0 ZCA

CN Cyclotetrasiloxane, 2-ethenyl-2,6,6-trimethyl-4,4,8,8-tetraphenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 139196-39-7

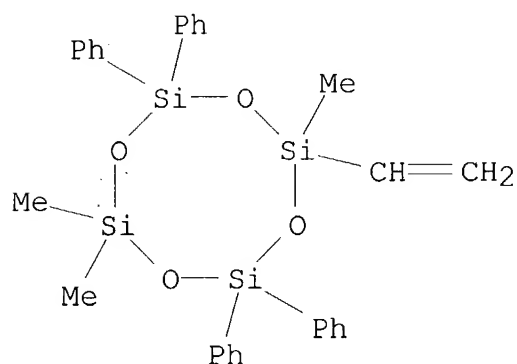
CMF C29 H32 O4 Si4



RN 139196-41-1 ZCA
 CN Cyclotetrasiloxane, 2-ethenyl-2,6,6-trimethyl-4,4,8,8-tetraphenyl-,
 polymer with octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

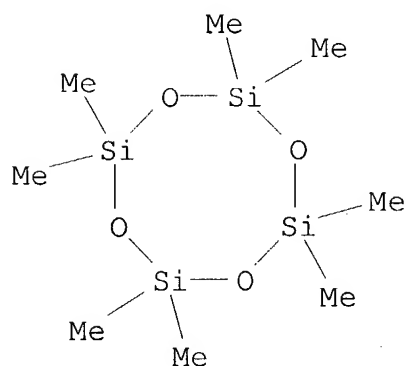
CM 1

CRN 139196-39-7
 CMF C29 H32 O4 Si4



CM 2

CRN 556-67-2
 CMF C8 H24 O4 Si4



L19 ANSWER 35 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 113:173858 Organopolysilanes as photopolymerization initiators of
 poly(methylvinylsiloxanes) and poly(dimethylsiloxanes). Semenov, V.
 V.; Cherepennikova, N. F.; Artemicheva, S. B.; Razuvaev, G. A.
 (Inst. Organomet. Chem., Gorky, USSR). Applied Organometallic

Chemistry, 4(2), 163-72 (English) 1990. CODEN: AOCHEX. ISSN: 0268-2605.

IT **95243-84-8 95243-84-8D**, divinylmethylsiloxo- or trimethylsiloxo-terminated
(rubber, photochem. vulcanization agents for, organosilane oligomers as)

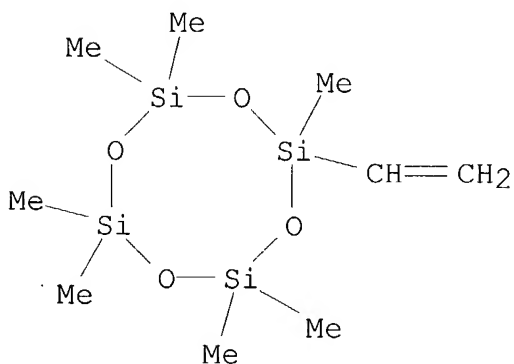
RN 95243-84-8 ZCA

CN Cyclotetrasiloxane, ethenylheptamethyl-, polymer with octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

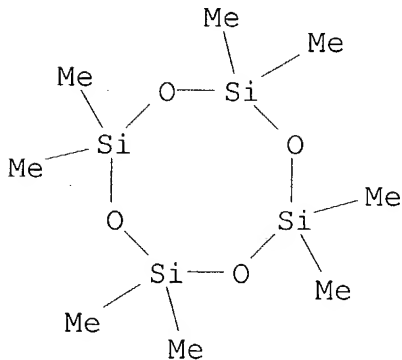
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

CMF C8 H24 O4 Si4



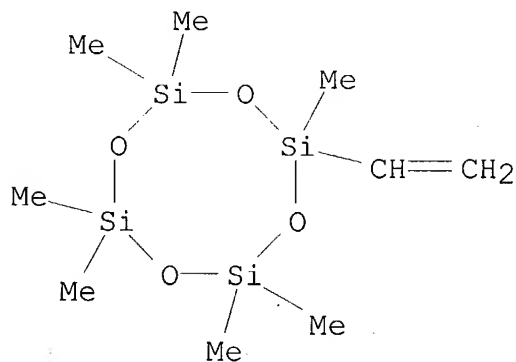
RN 95243-84-8 ZCA

CN Cyclotetrasiloxane, ethenylheptamethyl-, polymer with octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

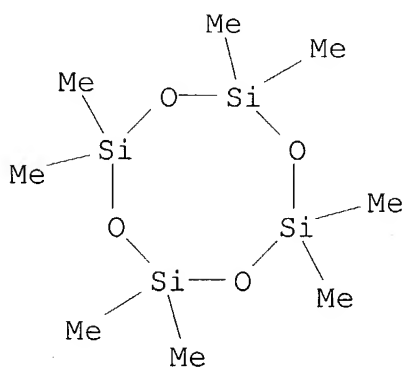
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

CMF C8 H24 O4 Si4



L19 ANSWER 36 OF 59 ZCA COPYRIGHT 2004 ACS on STN

106:50743 Graft anionic copolymerization of octamethylcyclotetrasiloxane with oligostyrene carbocyclosiloxanes. Zhdanov, A. A.; Zavin, B. G.; Blokhina, O. G. (Inst. Elementoorg. Soedin. im. Nesmeyanova, Moscow, USSR). Vysokomolekulyarnye Soedineniya, Seriya A, 28(10), 2185-90 (Russian) 1986. CODEN: VYSAAF. ISSN: 0507-5475.

IT 62503-79-1

(graft polymerization of, with octamethylcyclotetrasiloxane,
kinetics of

and chain transfer in anionic)

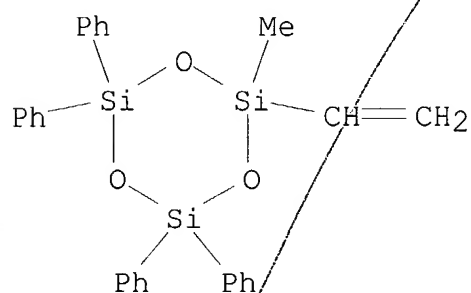
RN 62503-79-1 ZCA

CN Cyclotrisiloxane, 2-ethenyl-2-methyl-4,4,6,6-tetraphenyl-, polymer
with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 1457-02-9

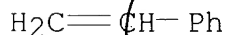
CMF C27 H26 O3 Si3



CM 2

CRN 100-42-5

CMF C8 H8



L19 ANSWER 37 OF 59 ZCA COPYRIGHT 2004 ACS on STN

105:135293 Silicone elastomer composition. Watanabe, Junichiro;
Funahashi, Yuichi; Sugiura, Kazuo; Matsumoto, Hironori (Toshiba
Silicone Co., Ltd., Japan). Eur. Pat. Appl. EP 180843 A1 19860514,
29 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN:
EPXXDW. APPLICATION: EP 1985-113341 19851021. PRIORITY: JP
1984-221540 19841022.

IT **103811-47-8P**

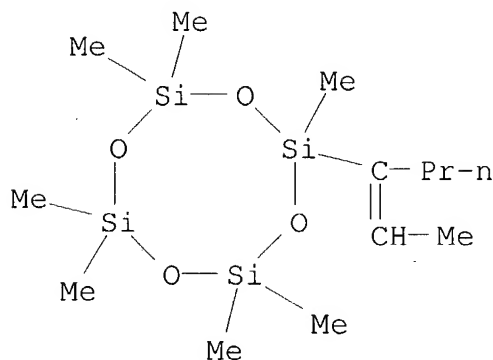
(rubber, manufacture and peroxide vulcanization of)

RN 103811-47-8 ZCA

CN Cyclotetrasiloxane, (1-ethylidenebutyl)heptamethyl-, polymer with
octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

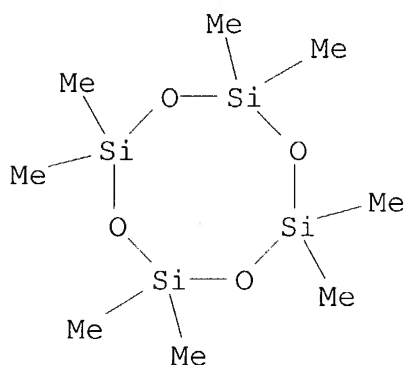
CM 1

CRN 103811-46-7
CMF C13 H32 O4 Si4



CM 2

CRN 556-67-2
CMF C8 H24 O4 Si4



L19 ANSWER 38 OF 59 ZCA COPYRIGHT 2004 ACS on STN
105:80376 Methyl vinyl silicone rubber. Marcu, Mihai; Stiubianu, Gheorghe; Ilie, Silvia Elena; Perjoiu, Mihaela; Streba, Emilia; Pricop, Lucia; Roman, Gheorghe (Institutul de Chimie Macromoleculara "Petru Poni", Rom.). Rom. RO 86739 B1 19850430, 2 pp. (Romanian). CODEN: RUXXA3. APPLICATION: RO 1982-109195 19821202.

IT **103737-84-4P**

(rubber, manufacture of, for vulcanizates with low permanent set)

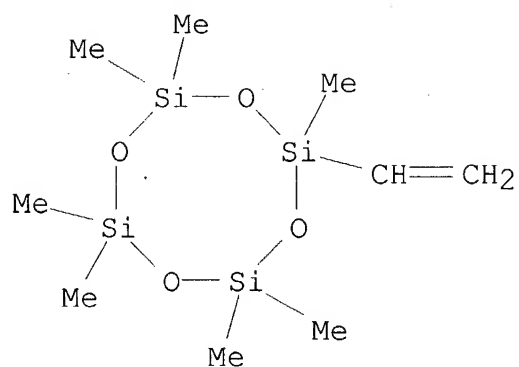
RN 103737-84-4 ZCA

CN Cyclopentasiloxane, decamethyl-, polymer with ethenylheptamethylcyclotetrasiloxane, hexamethylcyclotrisiloxane and octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

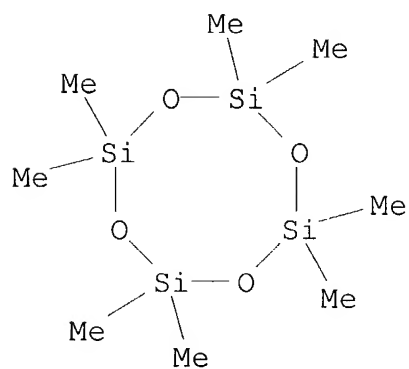
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

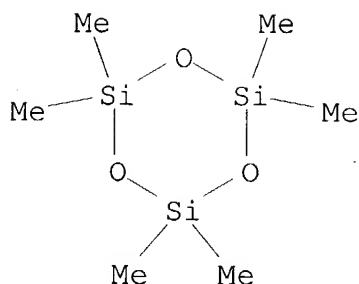
CMF C8 H24 O4 Si4



CM 3

CRN 541-05-9

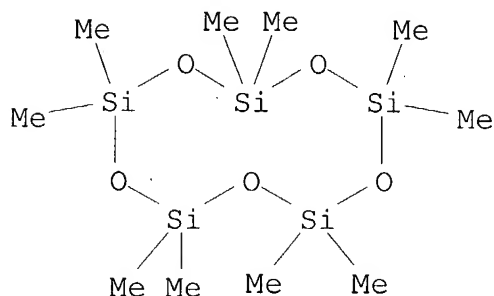
CMF C6 H18 O3 Si3



CM 4

CRN 541-02-6

CMF C10 H30 O5 Si5



L19 ANSWER 39 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 103:6823 Synthesis of polystyrene-polysiloxane graft copolymers.
 Zhdanov, A. A.; Zavin, B. G.; Blokhina, O. G. (Inst. Elementoorg.
 Soedin. im. Nesmeyanova, Moscow, USSR). Vysokomolekulyarnye
 Soedineniya, Seriya A, 27(4), 749-55 (Russian) 1985. CODEN: VYSAAF.
 ISSN: 0507-5475.

IT **96787-85-8P**

(graft, preparation, structure and properties of)

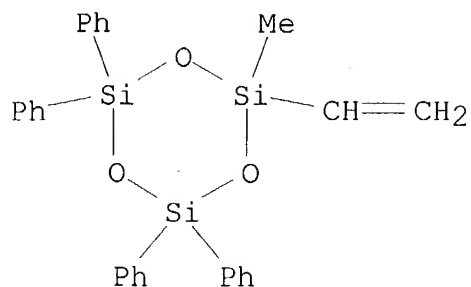
RN 96787-85-8 ZCA

CN Cyclotetrasiloxane, octamethyl-, polymer with ethenylbenzene and
 2-ethenyl-2-methyl-4,4,6,6-tetraphenylcyclotrisiloxane (9CI) (CA
 INDEX NAME)

CM 1

CRN 1457-02-9

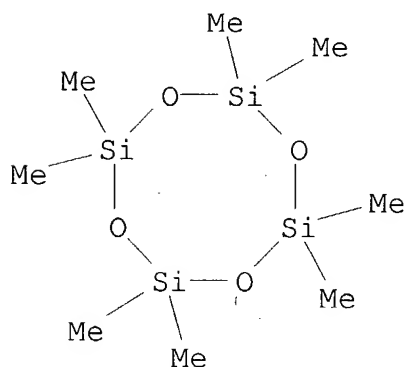
CMF C27 H26 O3 Si3



CM 2

CRN 556-67-2

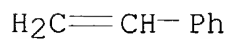
CMF C8 H24 O4 Si4



CM 3

CRN 100-42-5

CMF C8 H8



L19 ANSWER 40 OF 59 ZCA COPYRIGHT 2004 ACS on STN

102:114080 Effect of diethyl phosphite and diethylphosphine oxide on polydimethylvinylsiloxanes. Zhdanov, A. A.; Kurasheva, N. A.; Kuteinikova, L. I. (Inst. Elementoorg. Soedin. im. Nesmeyanova, Moscow, USSR). Vysokomolekulyarnye Soedineniya, Seriya A, 26(12), 2588-92 (Russian) 1984. CODEN: VYSAAF. ISSN: 0507-5475.

IT 95243-84-8

(attempted phosphorylation of, by diethylphosphine oxide and

di-Et phosphite, polymer degradation in)

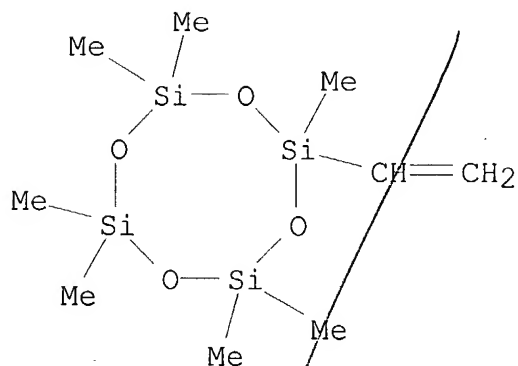
RN 95243-84-8 ZCA

CN Cyclotetrasiloxane, ethenylheptamethyl-, polymer with octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

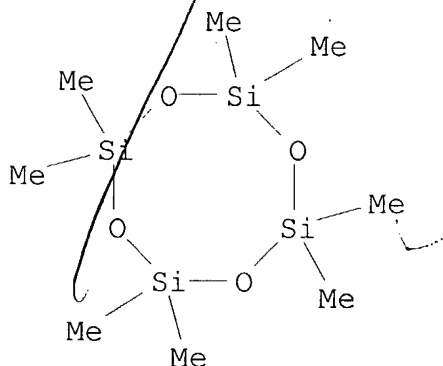
CMF C9 H24 O4 Si4



CM 2

CRN 556-67-2

CMF C8 H24 O4 Si4



IT 25085-97-6 95243-85-9

(phosphorylation of, photochem., by diethylphosphine oxide)

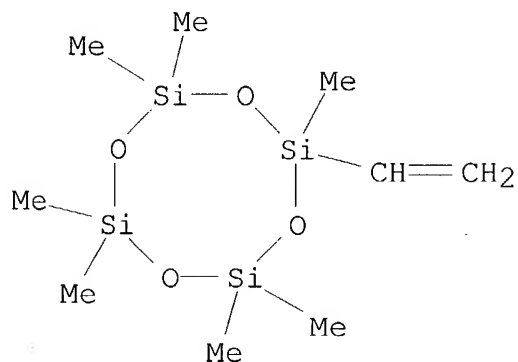
RN 25085-97-6 ZCA

CN Cyclotetrasiloxane, ethenylheptamethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

CMF C9 H24 O4 Si4



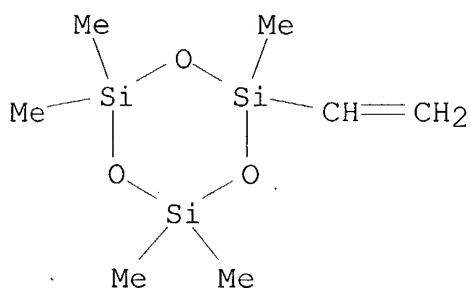
RN 95243-85-9 ZCA

CN Cyclotrimer, ethenylpentamethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 18395-32-9

CMF C7 H18 O3 Si3



L19 ANSWER 41 OF 59 ZCA COPYRIGHT 2004 ACS on STN

101:152876 Poly(methylperfluoroisopropoxypropyldimethylsiloxane).

Yuzhelevskii, Yu. A.; Fedoseeva, N. N.; Knunyants, I. L.; Dyatkin, B. L.; Shokina, V. V.; Mileshekevich, V. P. (USSR). U.S.S.R. SU 507046 A1 19840615 From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1984, (22), 183. (Russian). CODEN: URXXAF. APPLICATION: SU 1974-2033870 19740617.

IT 92268-65-0P

(manufacture of, in presence of DMF)

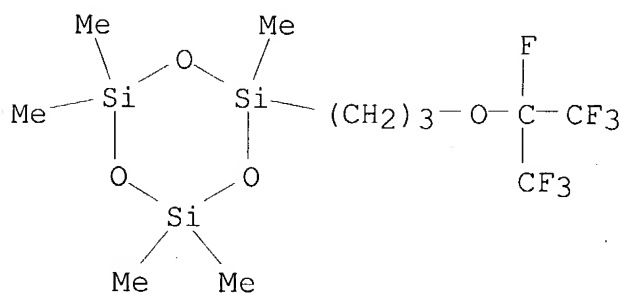
RN 92268-65-0 ZCA

CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with
 pentamethyl[3-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethoxy]propyl]
 cyclotrisiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 56153-41-4

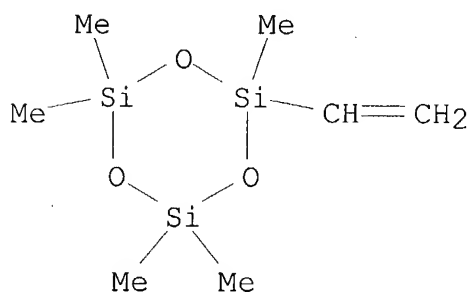
CMF C11 H21 F7 O4 Si3



CM 2

CRN 18395-32-9

CMF C7 H18 O3 Si3



L19 ANSWER 42 OF 59 ZCA COPYRIGHT 2004 ACS on STN

100:68799 Anionic nonequilibrium copolymerization of
 hexaorganocyclotrisiloxanes having polar substituents on the silicon
 atom. Baratova, T. N.; Milieshevich, V. P.; Gurari, V. E. (Vses.
 Nauchno-Issled. Inst. Sint. Kauch., Leningrad, USSR).
 Vysokomolekulyarnye Soedineniya, Seriya A, 25(12), 2497-505
 (Russian) 1983. CODEN: VYSAAF. ISSN: 0507-5475.

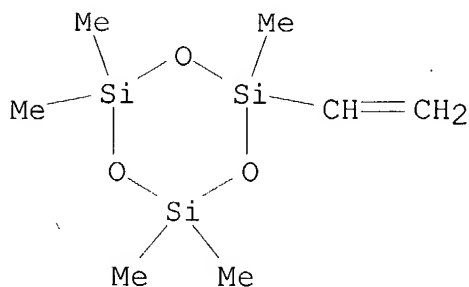
IT 88729-38-8P

(preparation and sequence distribution of)

RN 88729-38-8 ZCA
CN Cyclotrisiloxane, ethenylpentamethyl-, polymer with
(2 α ,4 α ,6 α)-2,4,6-trimethyl-2,4,6-
triphenylcyclotrisiloxane (9CI) (CA INDEX NAME)

CM 1

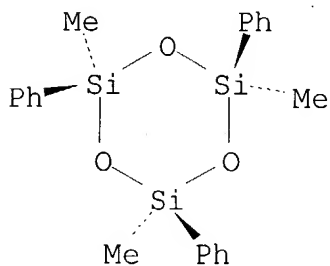
CRN 18395-32-9
CMF C7 H18 O3 Si3



CM 2

CRN 3424-57-5
CMF C21 H24 O3 Si3

Relative stereochemistry.



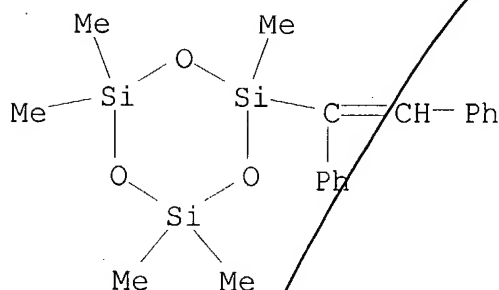
L19 ANSWER 43 OF 59 ZCA COPYRIGHT 2004 ACS on STN
93:186834 Anionic polymerization of aryl(diaryl)ethyl- and
vinylorganocyclosiloxanes. Nogaideli, A. I.; Nakaidze, L. I.;
Tskhovrebashvili, V. S. (Tbilisi. Gos. Univ., Tbilisi, USSR).
Izvestiya Akademii Nauk Gruzinskoi SSR, Seriya Khimicheskaya, 6(1),
50-3 (Russian) 1980. CODEN: IGSKDH. ISSN: 0132-6074.

IT 75084-91-2P
(preparation of, anionic)

RN 75084-91-2 ZCA
CN Cyclotrisiloxane, (1,2-diphenylethenyl)pentamethyl-, homopolymer
(9CI) (CA INDEX NAME)

CM 1

CRN 67364-40-3
CMF C19 H26 O3 Si3



L19 ANSWER 44 OF 59 ZCA COPYRIGHT 2004 ACS on STN
91:175742 Azido group-containing polysiloxane compositions. Tsunoda,
Takahiro; Yamaoka, Tsuguo; Ozeki, Kenichi; Hatanaka, Masayuki;
Funahashi, Yuichi (Toshiba Silicone Co., Ltd., Japan). Jpn. Kokai
Tokkyo Koho JP 54069197 19790602 Showa, 8 pp. (Japanese). CODEN:
JKXXAF. APPLICATION: JP 1977-137105 19771115.

IT **71680-40-5**

(photoresists, printing plates from)

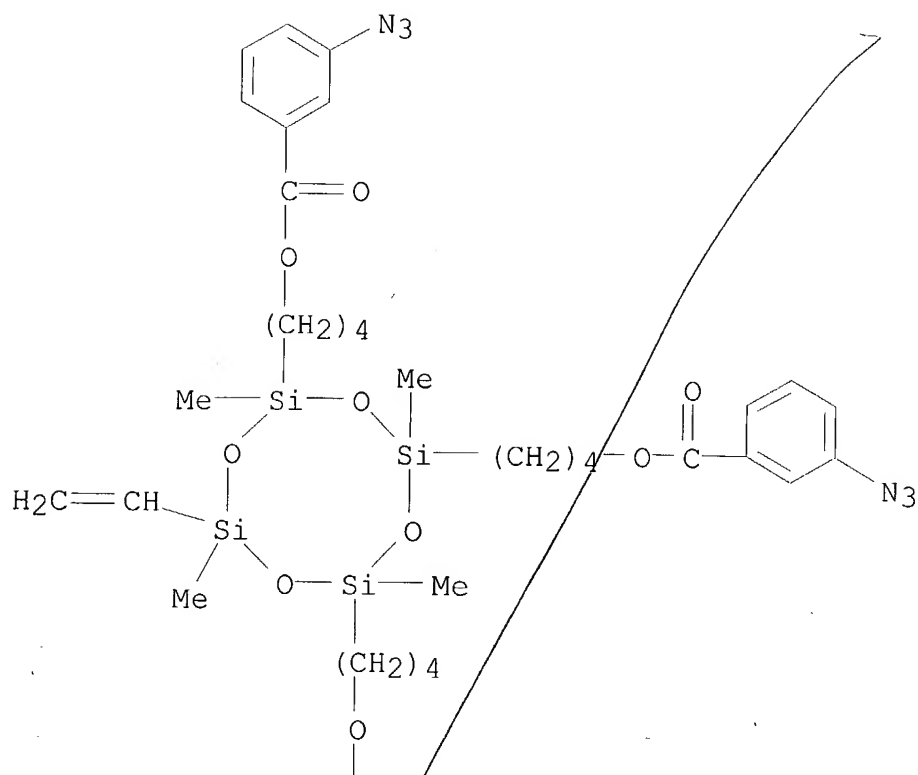
RN 71680-40-5 ZCA

CN Benzoic acid, 3-azido-, (8-ethenyl-2,4,6,8-
tetramethylcyclotetrasiloxane-2,4,6-triyl)tri-4,1-butanediyl ester,
homopolymer (9CI) (CA INDEX NAME)

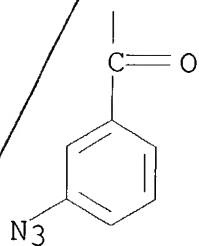
CM 1

CRN 71206-70-7
CMF C39 H51 N9 O10 Si4

PAGE 1-A



PAGE 2-A



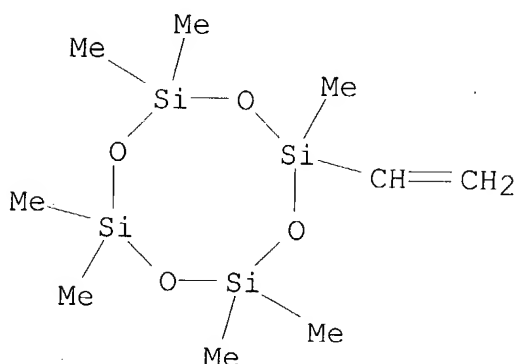
L19 ANSWER 45 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 87:168679 Thermal and radiation-induced degradation of polysiloxane
 layers produced by an electron-beam method. Sutyagin, V. A.;
 Tsapuk, A. K. (Fiz.-Khim. Inst. im. Karpova, Moscow, USSR). Khimiya
 Vysokikh Energii, 11(5), 308-12 (Russian) 1977. CODEN: KHVKAO.
 ISSN: 0023-1193.
 IT 25085-97-6

(films, oxidative degradation of, by γ ray and heat)
RN 25085-97-6 ZCA
CN Cyclotetrasiloxane, ethenylheptamethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

CMF C9 H24 O4 Si4



L19 ANSWER 46 OF 59 ZCA COPYRIGHT 2004 ACS on STN
86:156049 Study of the radical copolymerization of 1-methyl-1-vinyl-3,3,5,5-tetraphenylcyclotrisiloxane with styrene. Andrianov, K. A.; Blokhina, O. G.; Zavin, B. G.; Pertsova, N. V. (Inst. Elementoorg. Soedin., Moscow, USSR). Vysokomolekulyarnye Soedineniya, Seriya A, 19(2), 434-40 (Russian) 1977. CODEN: VYSAAF. ISSN: 0507-5475.
IT **62503-79-1P**

(preparation, glass transition temperature, and oxidative thermal degradation of)

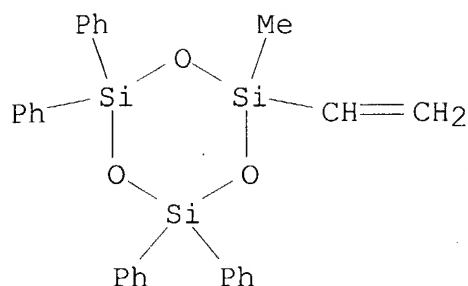
RN 62503-79-1 ZCA
CN Cyclotrisiloxane, 2-ethenyl-2-methyl-4,4,6,6-tetraphenyl-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 1457-02-9

CMF C27 H26 O3 Si3

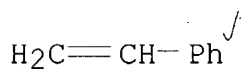
use 47/59



CM 2

CRN 100-42-5

CMF C8 H8



L19 ANSWER 47 OF 59 ZCA COPYRIGHT 2004 ACS on STN

84:165609 Polyorganosiloxanes containing methylvinylsiloxane links.

Kaufman, B. L.; Yuzhelevskii, Yu. A.; Savchenko, V. M.;

Mileshkevich, V. P.; Karlin, A. V.; Sergeeva, E. P.; Serova, T. P.;

Norden, N. E. (USSR). U.S.S.R. SU 504804 19760228 From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1976, 53(8), 63.

(Russian). CODEN: URXXAF. APPLICATION: SU 1973-1958495 19730918.

IT **59138-23-7**

(heat-resistant)

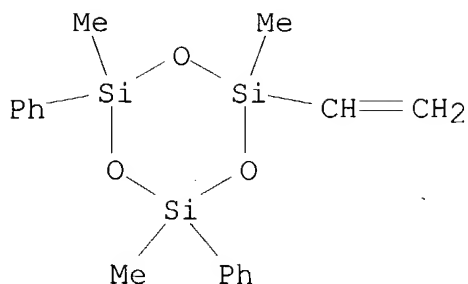
RN 59138-23-7 ZCA

CN Cyclotrisiloxane, 2-ethenyl-2,4,6-trimethyl-4,6-diphenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 59138-22-6

CMF C17 H22 O3 Si3



L19 ANSWER 48 OF 59 ZCA COPYRIGHT 2004 ACS on STN

75:110907 Succinimidoalkylsilanes and siloxanes. Wu, Tse C. (General Electric Co.). U.S. US 3586699 19710622, 5 pp. Division of U.S. 3,444,128 (CA 71;40019k). (English). CODEN: USXXAM. APPLICATION: US 1968-795756 19681024.

IT **33969-77-6P**

(preparation of)

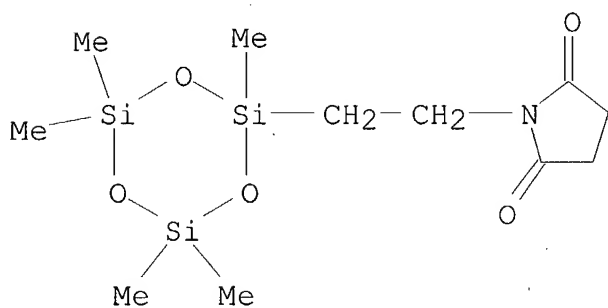
RN 33969-77-6 ZCA

CN Succinimide, N-[2-(pentamethylcyclotrisiloxanyl)ethyl]-, polymer with 2-methyl-4,4,6,6-tetraphenyl-2-vinylcyclotrisiloxane (8CI) (CA INDEX NAME)

CM 1

CRN 22304-52-5

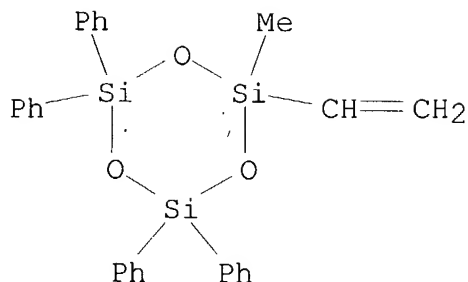
CMF C11 H23 N O5 Si3



CM 2

CRN 1457-02-9

CMF C27 H26 O3 Si3



L19 ANSWER 49 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 73:120967 Activity of organocyclosiloxanes during anionic polymerization. Andrianov, K. A.; Petrova, I. M.; Yakushkina, S. E. (Inst. Elementoorg. Soedin., Moscow, USSR). Vysokomolekulyarnye Soedineniya, Seriya A, 12(8), 1683-6 (Russian) 1970. CODEN: VYSAAF. ISSN: 0507-5475.

IT **25085-97-6P**

(preparation of, anionic)

RN 25085-97-6 ZCA

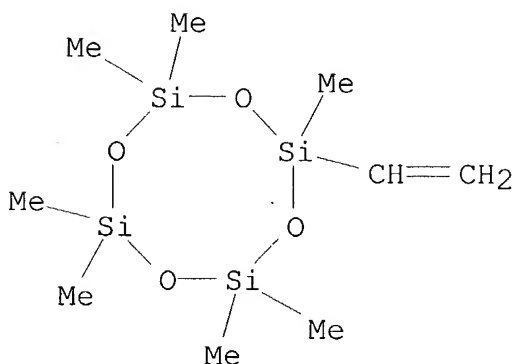
CN Cyclotetrasiloxane, ethenylheptamethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

CMF C9 H24 O4 Si4

use 5/59



L19 ANSWER 50 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 72:55640 Sulfone-containing organocyclotrisiloxanes. Wu, Tse C. (General Electric Co.). U.S. US 3487098 19691230, 5 pp. (English). CODEN: USXXAM. APPLICATION: US 1966-601877 19661215.

IT 25585-09-5P

(preparation of)

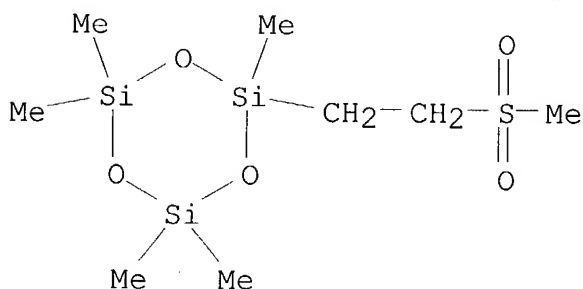
RN 25585-09-5 ZCA

CN Cyclotrisiloxane, 2-methyl-4,4,6,6-tetraphenyl-2-vinyl-, polymer with pentamethyl[2-(methylsulfonyl)ethyl]cyclotrisiloxane (8CI) (CA INDEX NAME)

CM 1

CRN 24413-69-2

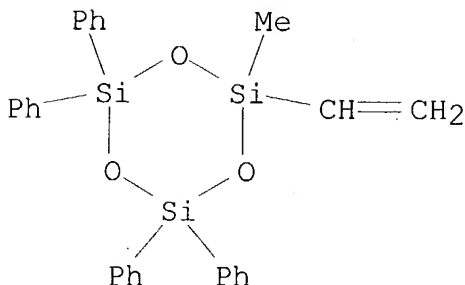
CMF C8 H22 O5 S Si3



CM 2

CRN 1457-02-9

CMF C27 H26 O3 Si3



L19 ANSWER 51 OF 59 ZCA COPYRIGHT 2004 ACS on STN

71:71342—Electrical properties of polymeric films prepared on a metallic surface during its electron irradiation. Tsapuk, A. K.; Kolotyrkin, V. M.; Shchurov, A. G.; Butaev, A. M.; Tunitskii, N. N. (USSR). Trudy po Khimii i Khimicheskoi Tekhnologii (2), 26-9 (Russian) 1968. CODEN: TKKTAE. ISSN: 0564-3457.

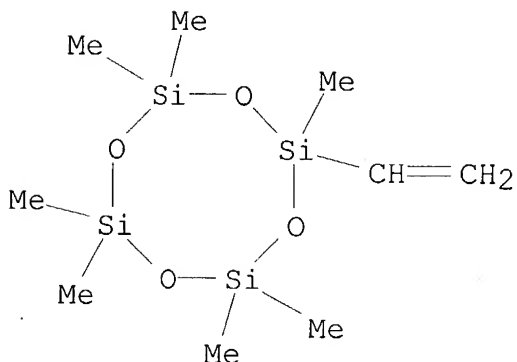
IT 25085-97-6

(elec. properties of, in electron-irradiated films on aluminum)
RN 25085-97-6 ZCA
CN Cyclotetrasiloxane, ethenylheptamethyl-, homopolymer (9CI) (CA
INDEX NAME)

CM 1

CRN 3763-39-1

CMF C9 H24 O4 Si4



L19 ANSWER 52 OF 59 ZCA COPYRIGHT 2004 ACS on STN
69:77841 Effect of substituents on the reactivity of
organocyclosiloxanes in anionic polymerization. Andrianov, K. A.;
Yakushkina, S. E.; Terent'eva, N. N. (Inst. Elementoorg. Soedin.,
Moscow, USSR). Vysokomolekulyarnye Soedineniya, Seriya A, 10(8),
1721-6 (Russian) 1968. CODEN: VYSAAF. ISSN: 0507-5475.

IT **25085-97-6P**

(preparation of, kinetics of)

RN 25085-97-6 ZCA

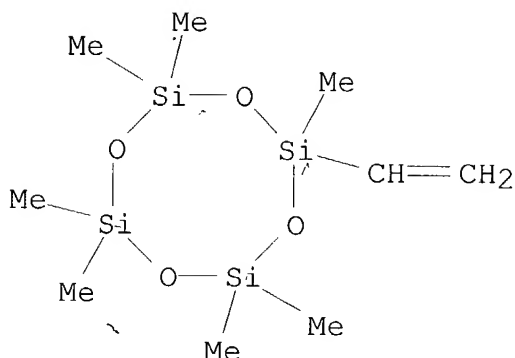
CN Cyclotetrasiloxane, ethenylheptamethyl-, homopolymer (9CI) (CA
INDEX NAME)

CM 1

CRN 3763-39-1

CMF C9 H24 O4 Si4

use 51/59 instead



L19 ANSWER 53 OF 59 ZCA COPYRIGHT 2004 ACS on STN

69:36509 Cohydrolysis of γ -trifluoropropenylmethylchlorosilane with dimethyldichlorosilane and polymerization of the reaction products. Andrianov, K. A.; Izmailov, B. A.; Kadina, M. A.; Nikol'skii, N. S. (Inst. Elementoorg. Soedin., Moscow, USSR). Khimiya Geterotsiklicheskikh Soedinenii (1), 37-9 (Russian) 1968. CODEN: KGSSAQ. ISSN: 0132-6244.

IT **29153-55-7P 29153-56-8P**
(preparation of)

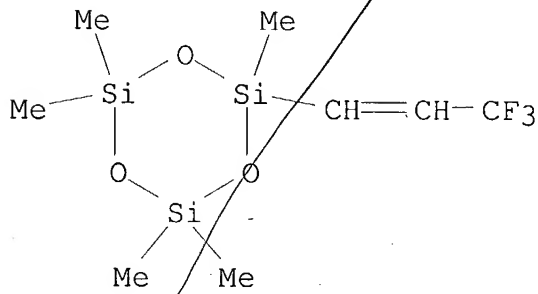
RN 29153-55-7 ZCA

CN Cyclotrisiloxane, 2,2,4,4,6-pentamethyl-6-(3,3,3-trifluoropropenyl)-, polymers (8CI) (CA INDEX NAME)

CM 1

CRN 17913-05-2

CMF C8 H17 F3 O3 Si3



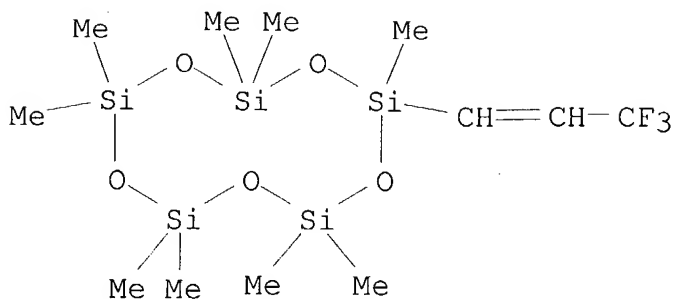
RN 29153-56-8 ZCA

CN Cyclopentasiloxane, 2,2,4,4,6,6,8,8,10-nonamethyl-10-(3,3,3-trifluoropropenyl)-, polymers (8CI) (CA INDEX NAME)

CM 1

CRN 17913-06-3

CMF C12 H29 F3 O5 Si5



L19 ANSWER 54 OF 59 ZCA COPYRIGHT 2004 ACS on STN

69:28299 Organopolysiloxanes substituted with trialkylsilylphenyl substituents. Wu, Tse C. U.S. US 3385821 19680528, 9 pp.

(English). CODEN: USXXAM. APPLICATION: US 1966-595632 19661121.

IT **29057-67-8P 29057-68-9P 29057-69-0P****29496-38-6P 29496-39-7P**

(manufacture and crosslinking of)

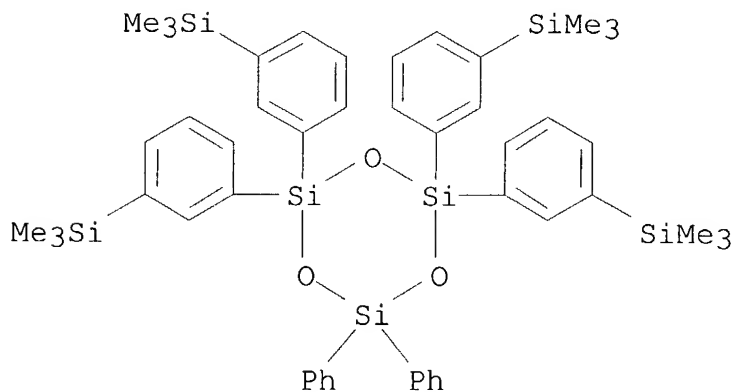
RN 29057-67-8 ZCA

CN Cyclotrisiloxane, 2,2-diphenyl-4,4,6,6-tetrakis[m-(trimethylsilyl)phenyl]-, polymer with 2-methyl-4,4,6,6-tetraphenyl-2-vinylcyclotrisiloxane (8CI) (CA INDEX NAME)

CM 1

CRN 17612-00-9

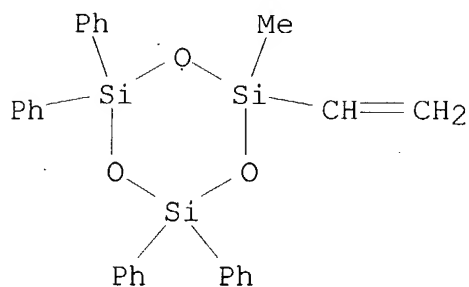
CMF C48 H62 O3 Si7



CM 2

CRN 1457-02-9

CMF C27 H26 O3 Si3



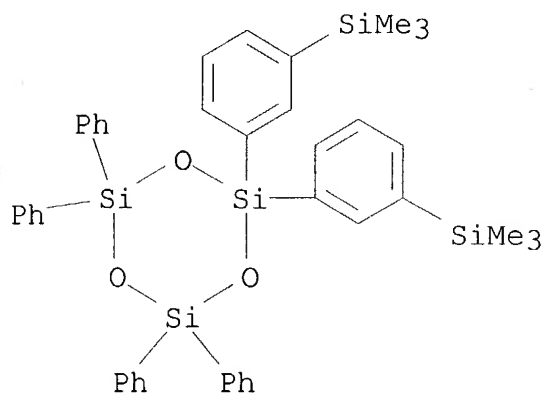
RN 29057-68-9 ZCA

CN Cyclotrisiloxane, 2,2,4,4-tetraphenyl-6,6-bis[m-
(trimethylsilyl)phenyl]-, polymer with 2-methyl-4,4,6,6-tetraphenyl-
2-vinylcyclotrisiloxane and 2,2,4,4-tetraphenyl-6,6-bis[p-
(trimethylsilyl)phenyl]cyclotrisiloxane (8CI) (CA INDEX NAME)

CM 1

CRN 17611-97-1

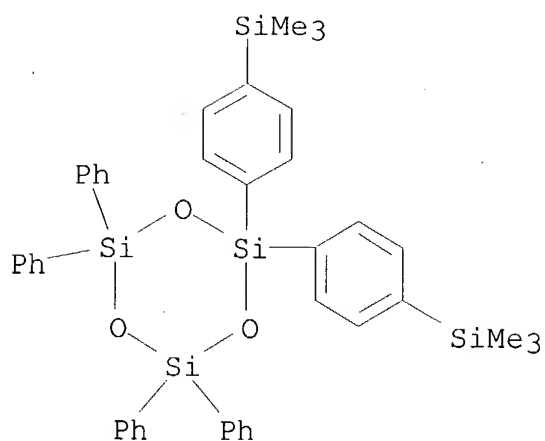
CMF C42 H46 O3 Si5



CM 2

CRN 17611-96-0

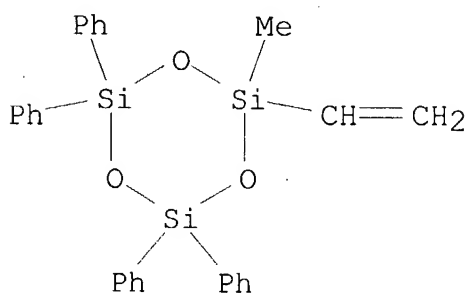
CMF C42 H46 O3 Si5



CM 3

CRN 1457-02-9

CMF C27 H26 O3 Si3



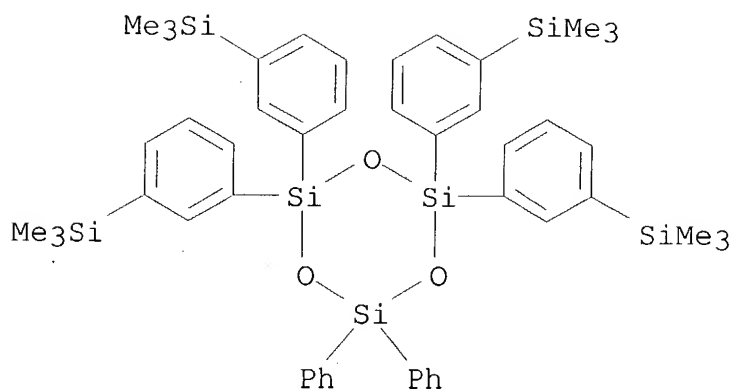
RN 29057-69-0 ZCA

CN Cyclotrisiloxane, 2,2-diphenyl-4,4,6,6-tetrakis[m-(trimethylsilyl)phenyl]-, polymer with 2-methyl-4,4,6,6-tetraphenyl-2-vinylcyclotrisiloxane and 2,2,4,4-tetraphenyl-6,6-bis[m-(trimethylsilyl)phenyl]cyclotrisiloxane (8CI) (CA INDEX NAME)

CM 1

CRN 17612-00-9

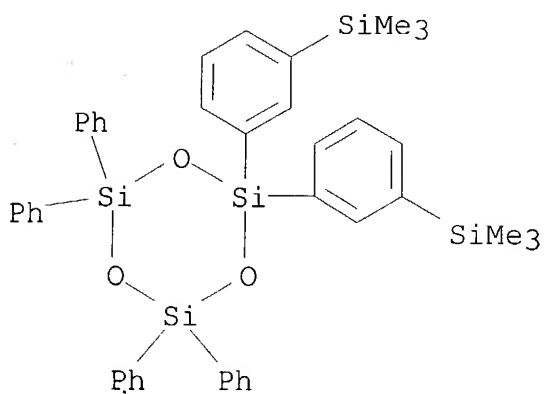
CMF C48 H62 O3 Si7



CM 2

CRN 17611-97-1

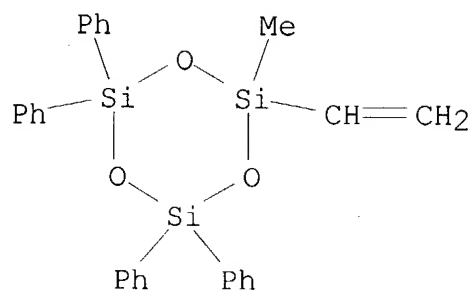
CMF C42 H46 O3 Si5



CM 3

CRN 1457-02-9

CMF C27 H26 O3 Si3



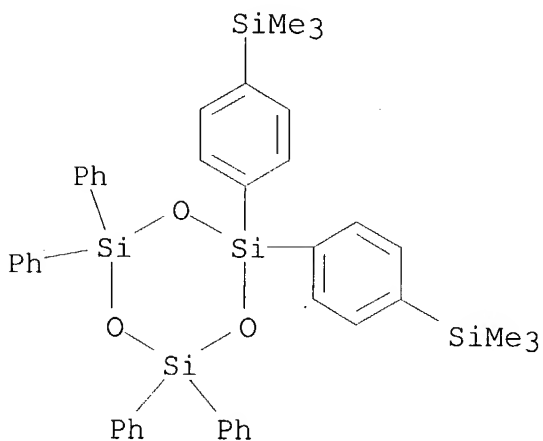
RN 29496-38-6 ZCA

CN Cyclotrisiloxane, 2,2,4,4-tetraphenyl-6,6-bis[p-(trimethylsilyl)phenyl]-, polymer with 2-methyl-4,4,6,6-tetraphenyl-2-vinylcyclotrisiloxane (8CI) (CA INDEX NAME)

CM 1

CRN 17611-96-0

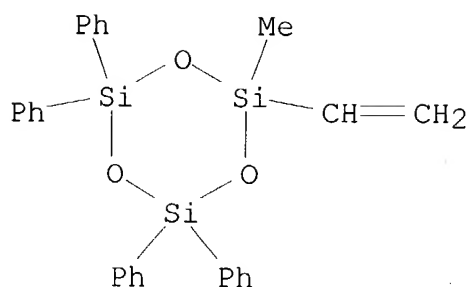
CMF C42 H46 O3 Si5



CM 2

CRN 1457-02-9

CMF C27 H26 O3 Si3



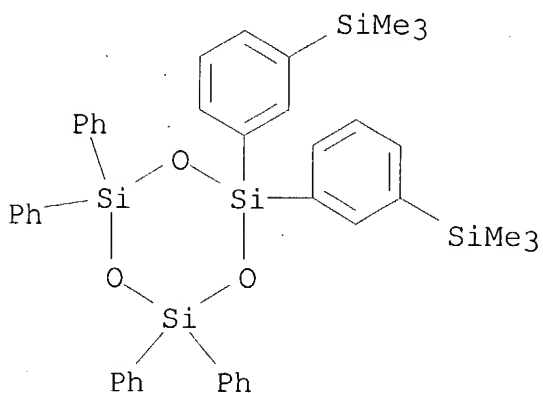
RN 29496-39-7 ZCA

CN Cyclotrisiloxane, 2,2,4,4-tetraphenyl-6,6-bis[m-(trimethylsilyl)phenyl]-, polymer with 2-methyl-4,4,6,6-tetraphenyl-2-vinylcyclotrisiloxane (8CI) (CA INDEX NAME)

CM 1

CRN 17611-97-1

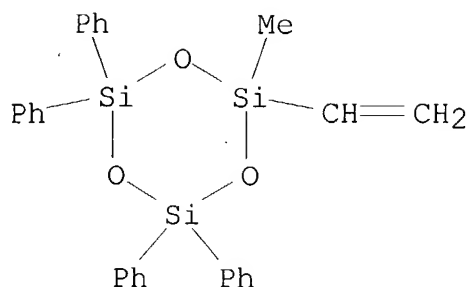
CMF C42 H46 O3 Si5



CM 2

CRN 1457-02-9

CMF C27 H26 O3 Si3



L19 ANSWER 55 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 67:100237 Vinylheptaphenylcyclotetrasiloxane. Sporck, Christian R.
 (General Electric Co.). U.S. US 3340288 19670905, 3 pp. (English).
 CODEN: USXXAM. APPLICATION: US 19611218.

IT **30939-09-4P 30939-14-1P**

(preparation of)

RN 30939-09-4 ZCA

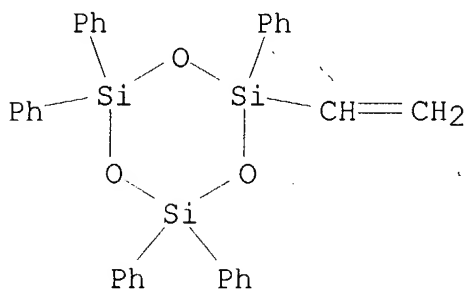
CN Cyclotrisiloxane, pentaphenylvinyl-, polymer (8CI) (CA INDEX NAME)

CM 1

CRN 15208-34-1

CMF C32 H28 O3 Si3

→ Polymer is open
 structure
 i.e., linear
polymer.



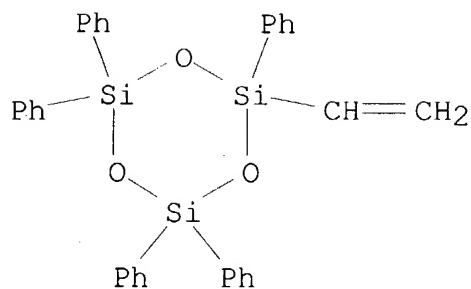
RN 30939-14-1 ZCA

CN Cyclotrisiloxane, hexaphenyl-, polymer with 2,2,4,4,6-pentaphenyl-6-vinylcyclotrisiloxane (8CI) (CA INDEX NAME)

CM 1

CRN 15208-34-1

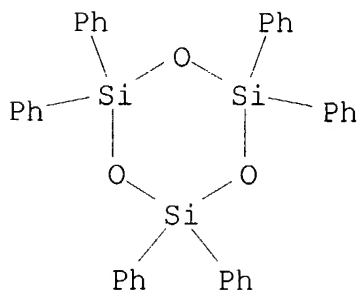
CMF C32 H28 O3 Si3



CM 2

CRN 512-63-0

CMF C36 H30 O3 Si3



L19 ANSWER 56 OF 59 ZCA COPYRIGHT 2004 ACS on STN

67:73940 1,3,5,5,7,7-Hexamethyl-1-vinylcyclotetrasiloxane and its polymerization. Andrianov, K. A.; Sidorov, V. I.; Zaitseva, M. G.; Khananashvili, L. M. (M. V. Lomonosov Mosk. Inst. Tonkoi Khim. Tekhnol., Moscow, USSR). Khimiya Geterotsiklicheskikh Soedinenii (1), 32-4 (Russian) 1967. CODEN: KGSSAQ. ISSN: 0132-6244.

IT **30973-18-3P**

(preparation of)

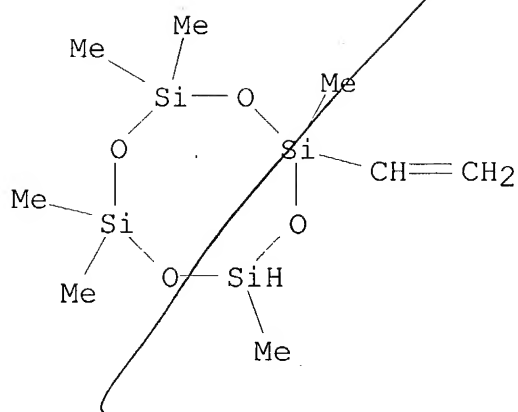
RN 30973-18-3 ZCA

CN Cyclotetrasiloxane, 2,2,4,4,6,8-hexamethyl-6-vinyl-, polymers (8CI)
(CA INDEX NAME)

CM 1

CRN 17465-23-5

CMF C8 H22 O4 Si4



L19 ANSWER 57 OF 59 ZCA COPYRIGHT 2004 ACS on STN

66:65908 Anionic copolymerization of some cyclic polysiloxanes.

Jelinek, Milan; Laita, Zdenek; Kucera, Miloslav (Forschungsinst. Makromol. Chem., Brno, Czech.). Journal of Polymer Science, Polymer Symposia, 16, 431-40 (German) 1966. CODEN: JPYCAQ. ISSN: 0360-8905.

IT **31425-42-0P 31533-92-3P**
(preparation of)

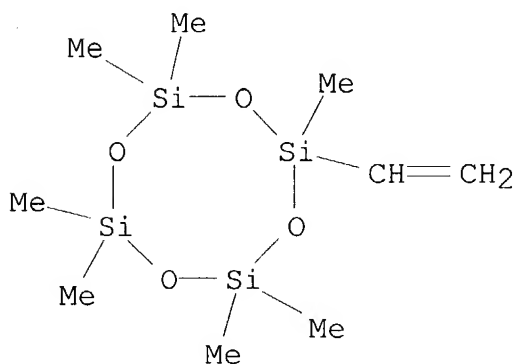
RN 31425-42-0 ZCA

CN Cyclohexasiloxane, dodecamethyl-, polymer with
heptamethylvinylcyclotetrasiloxane (8CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

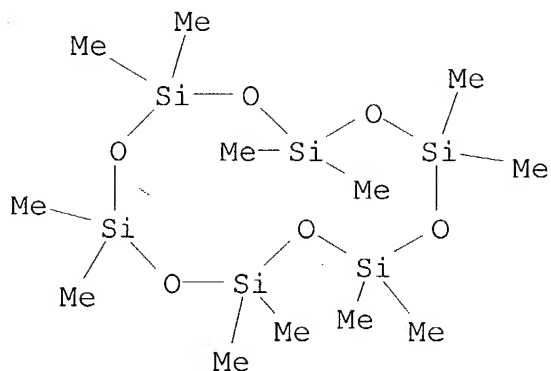
CMF C9 H24 O4 Si4



CM 2

CRN 540-97-6

CMF C12 H36 O6 Si6



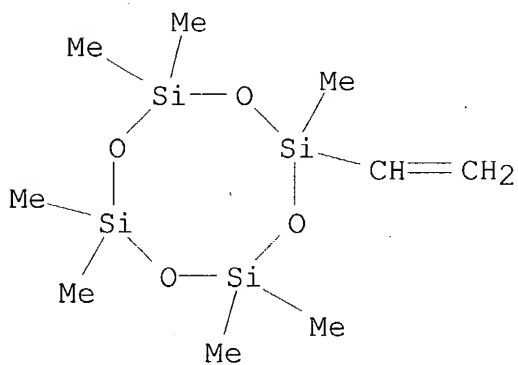
RN 31533-92-3 ZCA

CN Cycloheptasiloxane, tetradecamethyl-, polymer with
heptamethylvinylcyclotetrasiloxane (8CI) (CA INDEX NAME)

CM 1

CRN 3763-39-1

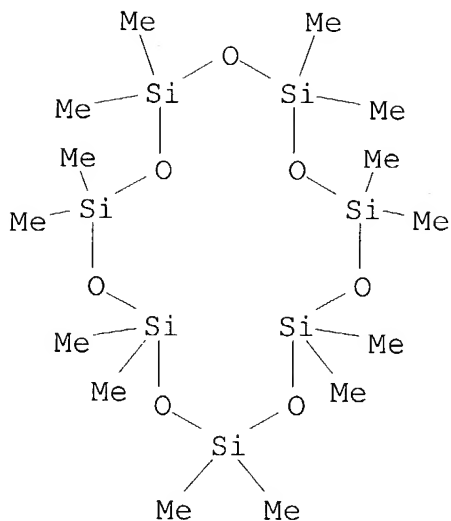
CMF C9 H24 O4 Si4



CM 2

CRN 107-50-6

CMF C14 H42 O7 Si7



L19 ANSWER 58 OF 59 ZCA COPYRIGHT 2004 ACS on STN

61:77052 Original Reference No. 61:13452e-e Cyclic

poly(diorganosiloxanes). Sporck, Christian R. (General Electric Co.). BE 635646 19631118, 19pp. (Unavailable). PRIORITY: US 19611218.

IT **30939-09-4**, Cyclotrisiloxane, pentaphenylvinyl-, homopolymer

620169-40-6, Cyclotetrasiloxane, heptaphenylvinyl-, homopolymer

(preparation of)

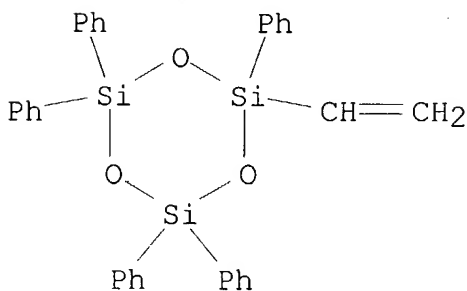
RN 30939-09-4 ZCA

CN Cyclotrisiloxane, pentaphenylvinyl-, polymer (8CI) (CA INDEX NAME)

CM 1

CRN 15208-34-1

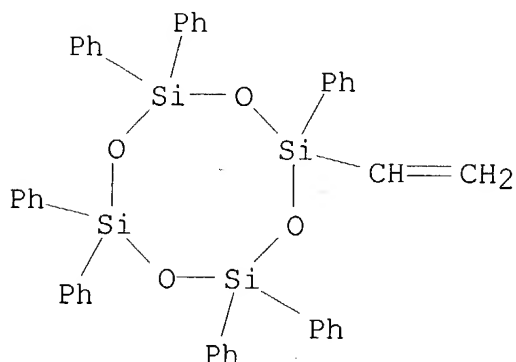
CMF C32 H28 O3 Si3



RN 620169-40-6 ZCA
 CN Cyclotetrasiloxane, heptaphenylvinyl-, homopolymer (7CI) (CA INDEX NAME)

CM 1

CRN 15208-31-8
 CMF C44 H38 O4 Si4



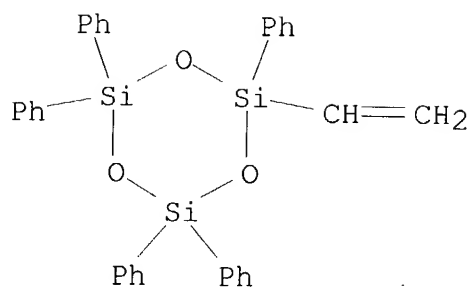
L19 ANSWER 59 OF 59 ZCA COPYRIGHT 2004 ACS on STN
 61:77051 Original Reference No. 61:13452a-c
 Poly(vinylphenylcyclopolysiloxanes). Sporck, Christian R. (General Electric Co.). BE 635643 19631118, 16 pp. (Unavailable). PRIORITY: US 19611218.

IT **30939-09-4**, Cyclotrisiloxane, pentaphenylvinyl-, homopolymer
620169-40-6, Cyclotetrasiloxane, heptaphenylvinyl-, homopolymer
 (preparation of)

RN 30939-09-4 ZCA
 CN Cyclotrisiloxane, pentaphenylvinyl-, polymer (8CI) (CA INDEX NAME)

CM 1

CRN 15208-34-1
 CMF C32 H28 O3 Si3



RN 620169-40-6 ZCA
CN Cyclotetrasiloxane, heptaphenylvinyl-, homopolymer (7CI) (CA INDEX NAME)

CM 1

CRN 15208-31-8

CMF C44 H38 O4 Si4

